"Selectric" Typewriter

Adjustment Parts Manual

Revised November, 1980 \$241-5939-3

IBM "Selectric" Typewriter (7XX)
IBM "Selectric" II Typewriter (8XX)
IBM "Selectric" III Typewriter (670X)
IBM 96 "Selectric" Typewriter (9XX)

The drawings and specifications contained herein shall not be reproduced in whole or in part without written permission.

IBM has prepared this maintenance manual for the use of IBM Customer Engineers in the installation, maintenance and repair of the specific machines indicated. IBM makes no representations that it is suitable for any other purpose.

Information contained in this manual is subject to change from time to time. Any such change will be reported in subsequent revisions or distributed through Customer Engineering Memorandums (CEMs) to all subscribers.

Requests for copies of IBM publications should be made to your IBM representative or to the IBM Branch Office servicing your locality.

Comments about the publications may be addressed to (IBM Corporation, 740 New Circle Road N.W., Information Development, Dept. A58, Lexington, Ky. 40511). IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation whatever. You may, of course, continue to use the information you supply.

"It is possible that this material may contain reference to, or information about, IBM products (machines and programs, programming, or services that are not announced in your country. Such references or information must not be construed to mean that IBM intends to announce such IBM products, programming, or services in your country."

"IBM," "Executive," "IBM EXECUTARY," and "Selectric" are registered trademarks of the IBM Corporation.

© Copyright International Business Machines Corporation 1964, 1966, 1967, 1968, 1969, 1971, 1973, 1975, 1976, 1979, 1980

SAFETY PRECAUTIONS

All IBM Customer Engineers are expected to take every safety precaution possible and observe the following safety practices when servicing IBM equipment.

Mechanical Safety:

- 1. Safety glasses must be worn.
- All safety devices, such as guards, shields, signs, ground wires, etc., must be restored after maintenance. When a guard or shield is removed to observe or make an adjustment, that shield must be replaced when work in the area is completed.
- 3. Watches, rings, necklaces, ID bracelets, etc., must be removed when servicing the machine.
- 4. Care must be used when working near moving parts. Keep hair away from moving parts. Avoid wearing loose clothing that might be caught in the machine. Shirt sleeves must be kept buttoned or rolled above the elbows. Ties must be tucked in the shirt or have a tie clasp approximately three inches from the end. Tie chains are not recommended.

Electrical Safety:

- 1. The equipment referenced in this manual may use high voltages, Check voltage labels!
- Safety glasses must be worn when checking energized circuits,
- 3. If a circuit is disconnected for servicing or parts replacement, it must be reconnected and tested before allowing the use of the machine.
- Power should be removed from the machine for servicing whenever possible. Remember, when checking voltages, avoid contacting ground potential, such as metal floor strips, machine frame, etc.
- Meter continuity checks should be used instead of voltage checks whenever possible,
- Do not apply power to any part, component, or subassembly when it is not physically mounted in the machine, or its approved service position.

General Safety:

- Each Customer Engineer is responsible to be certain no action on his/her part makes the product unsafe or exposes customer personnel to hazards.
- 2. Store the removed machine covers in a safe, out of the way place where no one can trip over them.
- 3. If you must leave the machine in a down condition, always install the covers and disconnect the power before leaving the customer's office.
- 4. Always place CE tool kit away from walk areas where no one can trip over it.
- Maintain safe conditions in the area of the machine while performing and after completing maintenance.
- Before starting the equipment, make sure fellow CEs and customer personnel are not in a hazardous position.
- 7. All the machine covers must be in place before the machine is returned to the customer.

Note: Refer to the Safety CEMs relating to this product(s) for further safety precautions.

INTRODUCTION

This manual is written for both U.S. and World Trade usage. It contains an adjustment section, a parts manual section, and a diagnostics section for the following products:

Product Name	Model	Machine Type
IBM "Selectric" Typewriter	7XX	6121
IBM "Selectric" II Typewriter And IBM Correcting "Selectric" II Typewriter	8XX	6126
IBM "Selectric" III Typewriter And IBM Correcting "Selectric" III Typewriter	670X	6701-05

World Trade Note: The IBM 96-Character "Selectric" Typewriter applies only to some World Trade countries.

9XX

ADJUSTMENT SECTION

Purpose

IBM 96-Character

"Selectric" Typewriter

This section provides a reference for the most commonly used adjustments. Refer to other product service publications if additional information is needed.

Adjustment Identification

The headline of each page shows the product name identification code, product code, and the name of the mechanism covered on that page. Each adjustment is indicated by a black frame number in the top left corner, followed by the adjustment

name and mechanism code/reference number. If one frame covers adjustments for more than one product or product level, they are indicated by the identification code and/or the level number. The machine mode, the view of the drawing, and safety precautions are also noted when required.

Adjustment Sequence

The frame numbers indicate the sequence of adjustments. One adjustment could affect a following adjustment. Therefore, check all the following adjustments in that mechanism. A solid red bar indicates the end of the mechanism.

Red numbers on the bottom left corner of the frame indicate adjustments out of sequence that could be affected and should be checked.

Adjustment Procedure

The part to be adjusted is colored red, and a red arrow shows the direction of movement. Tolerances and/or additional information on how to perform the adjustment are shown when required.

Always use the adjustment tolerance shown in the publication with the latest date.

Call Reporting

Use the mechanism codes/reference numbers shown after the frame number and frame name for call reporting. The reference number is not always the number of the part that is colored red.

PARTS MANUAL SECTION

Introduction

This section contains parts drawings of mechanisms, reference numbers and other special information. It must be used with a separate part number/price list manual which contains reference numbers, part numbers, part descriptions and prices.

Mechanism Identification

The headline of each page shows the product name, identification code and product code covered on that page. The headline of each frame (two frames per page) shows the mechanism name and the mechanism code covered in that frame. Some frames will show a model identification code after the mechanism name. Some mechanisms require more than one frame. However, each mechanism consists of a group of parts that work together to perform a function.

Part Identification

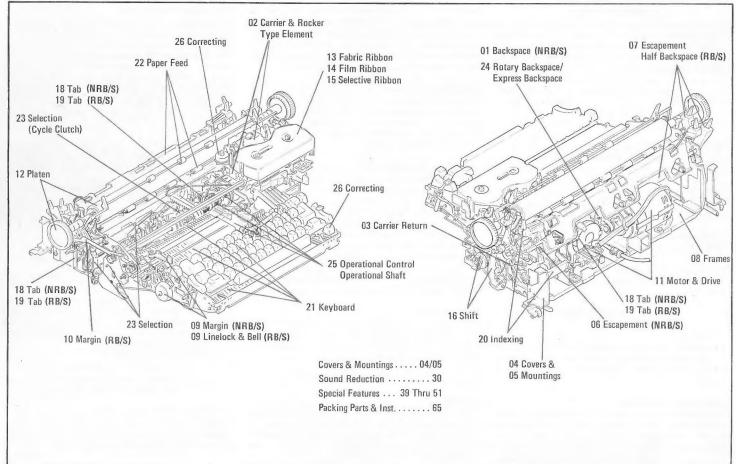
Red numbers indicate the reference number of a part, a bill of material (B/M) or an assembly.

Red blocks within a frame indicate either one, or a combination of more than one, of the following:

- Differences between the models (7XX, 8XX, 670X, or 9XX)
- Different modes within the same model [for example: rotary backspace (RB/S) and nonrotary backspace (NRB/S)]
- Different machine sizes (7X1, 7X3, or 7X5 "Selectric" Typewriter)
- Different levels within the same model, mode, or size (level 1, level 2, etc.). (8X3 and 8X5 apply to the "Selectric" Typewriter.) (XX3 and XX5 apply to the "Selectric" Typewriter and "Selectric" II Typewriter.)
- Field replacement parts
- Bill of material (B/M) or assemblies (shown with a description - parts shown in the drawing)
- World Trade applications or differences

If different levels exist, which can be used for all models, modes or sizes, only the newest level is shown in the drawing. However, the part number/price list manual will show all level parts.

(Continued On Page 4)



IBM "SELECTRIC" TYPEWRITER CONTENTS

			JUSTM	ENTS	
Mech Code	Page	Mechanism		Frame	Page
INTR	орис	TION			1
		Backspace			
24	. 91.	. Express Backspace		200.	. 30
07	. 70 .	. Half Backspace		195.	. 25
01	. 63.	. Non-Rotary Backspace (NRB/S) .		179.	. 28
24	. 91.	. Rotary Backspace (RB/S)		183.	. 20
	64.	. Cardholder Chart			
02	. 63.	. Carrier			
03	. 66.	. Carrier Return		167.	. 2.
23	. 90 .	. Character Selection		55.	. 1
		Character Selection (Rotate Tool)		78.	. 1
		Character Selection (Typehead)		67.	. 1.
26	. 93.	. Correcting			
		. Covers & Mountings (7XX)			
		. Covers & Mountings (8XX, 9XX)			
05	. 69 .	. Covers (670X)		375.	. 5.
		. Escapement (NRB/S)			
		. Escapement (RB/S)			
		Fine Alignment			
ns	71	. Frames			
		. Indexing,		262	. 3
	. 85.				
	. 85.				
		. Keyboard			
		. Keyboard (Dual Impression)			
		Linelock & Bell			
		. Margins (NRB/S)			
		, Margins (RB/S)			
		. Motor & Drive (Canadian)			
		. Motor & Drive (Netherlands)			
		. Motor & Drive (U.S.)			
		. Operational Control			. 2
		. Operational Shaft Assembly			
		. Paper Feed ("A-Frame")		250	.3
		. Paper Feed (Tie-Rod)			
		. Platen			
12	70	Ribbon, Fabric			
		. Ribbon, Fabric			
		. Ribbon, Selective			
15	. 80.	. middon, Selective		307	4

5 Roci O Selec O Shift 1 Spac 2 Tab 3 Tab 5 Type	ker (Gear Type Tilt) ker (Gearless Type T				152 206	2	9 24
5 Roci O Selec O Shift 1 Spac 2 Tab 3 Tab 5 Type	ker (Gearless Type T ction cebar. (NRB/S) (RB/S)				152 206	2	24
O Selec O Shift O Spac O Tab O Tab O Type	ction cebar. (NRB/S)(NB/S).				152 206	2	24
O Shift 1 Spac 2 Tab 3 Tab 5 Type	ebar				152 206	2	24
1 Spac 2 Tab 3 Tab 5 Type	ebar				152 206	2	24
2 Tab 3 Tab 5 Type	(NRB/S) (RB/S)				206	ì	
3 Tab 5 Type	(RB/S)						31
5Түр					204		
	e Elements				200		31
FEA							
	TURES						
5 Caro	Iholding Platen						
					375	7	53
6. , Dead	d Key (W.T.) Thailan	d					
8. Exte	rnal Ribbon Contro	1			392	2	54
7 Han	dicapped Attachmen	ts					
6 Man	ual Velocity Control				394	1	55
9 Over	rhead Pin Feed Plate	n (W.T.)					
6. Shif	t Sensing (Dual Impl	ression)			402	2	56
4 Soul	nd Reduction						
9 Stro	ke Counter						
	5 Dead 6 Dead 5 Dead 8 Exte 7 Hand 6 Man 9 Ovel 8 Pin 6 Shif 4 Soul	6 . Dead Key (W.T.) Thailan 5 . Dead Key Disconnect . 8 . External Ribbon Contro. 7 . Handicapped Attachmen 6 . Manual Velocity Control 9 . Overhead Pin Feed Plate. 8 . Pin Feed Platen	5. Dead Key (U.S.). 6. Dead Key (W.T.) Thailand 5. Dead Key Disconnect 8. External Ribbon Control 7. Handicapped Attachments 6. Manual Velocity Control 9. Overhead Pin Feed Platen (W.T.) 8. Pin Feed Platen 6. Shift Sensing (Dual Impression) 4. Sound Reduction	5. Dead Key (U.S.) 6. Dead Key (W.T.) Thailand 5. Dead Key Disconnect 7. Handicapped Attachments 6. Manual Velocity Control 9. Overhead Pin Feed Platen (W.T.) 8. Pin Feed Platen 6. Shift Sensing (Dual Impression) 4. Sound Reduction	5. Dead Key (U.S.) 6. Dead Key (W.T.) Thailand 5. Dead Key Disconnect 7. Handicapped Attachments 6. Manual Velocity Control 9. Overhead Pin Feed Platen (W.T.) 8. Pin Feed Platen 6. Shift Sensing (Dual Impression) 4. Sound Reduction	5. Dead Key (U.S.)	5. Dead Key (U.S.)

PART	S		ADJUSTN	IENTS
Mech Code	Page	Mechanism	Frame	Page
		GENERAL INFORMATION		
		Broken Tapes Check		57
		Common Abbreviations		
		Correcting Diagnostics		
		Electrical Safety Check		
		Functional Check		
		Identification Codes		
		Lubrication Guide		
		Ribbon Applications		
		Safety Precautions		
		Service Call Procedure		
		Type Element Arrangement.		
		Voltage Checks "Selectric" I		
		Dual-Pitch Typewriter		60
		Wiring Diagrams		
		Willing Diagrams		
		BOLT DOWN PARTS AND I	NSTRUCTIONS	
	101	Bolt Down Instructions		
04	. 67	. Bolt Down Parts (7XX)		
05	. 69	Bolt Down Parts (8XX, 9XX	, 670X)	
		PACKING PARTS AND INS	TRUCTIONS	
65.	.102	Packing (U.S.)		
		Packing (W.T.)		
		CHARTS		
		Cardholder Chart		6
		*Painted Cover Parts (7XX)		
05.		. *Painted Covers Parts (8XX, S	XX, 670X)	
12.		. *Platen Indexing		
		irts are printed in the Part N 5103).	umber/Price List	

(Introduction Continued From Page 1)

Some parts are shown for assembly purposes only and do not show a reference number. Replace these parts by ordering either the assembly or a later level part.

Parts Ordering

Locate the mechanism in which the part functions by using the contents page. Note the mechanism code, find the part in the drawing, and note the reference number. Use this mechanism code/reference number to locate the part number and price in the part number/price list manual.

World Trade should use the country's procedures to find the prices.

Features and devices (MESs) or specification changes (SERs) desired by the customer must be ordered through CE management and Branch Office sales.

Replacement parts for features, devices and SERs not shown in the parts manual must also be ordered through CE management and Branch Office sales.

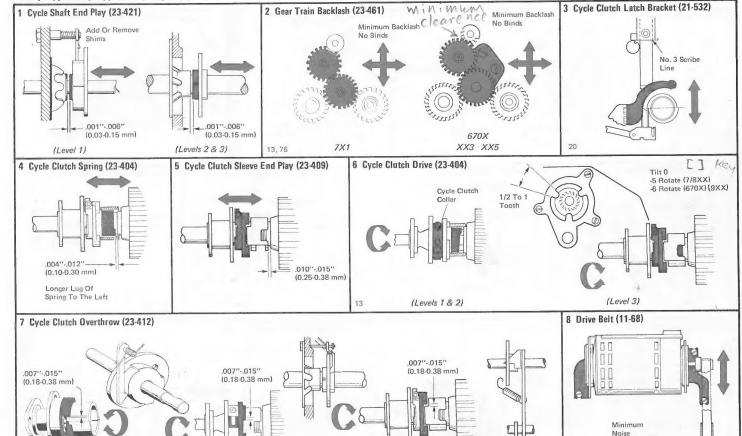
COMMON ABBREVIATIONS

The following list is provided as a reference for some of the common abbreviations used in this manual. It should be noted that some of these are new since the last revision.

new since	the last revision.
APM	Adjustment Parts Manual
ASM	Assembly
AVC	Automatic Velocity Control
B/M	Bill Of Material
CC	Cycle Clutch
CR	Carrier Return
CSI	Combined Service Information
DI	Dual Impression
DP	Dual Pitch
ECC OT	Eccentric Index Overthrow Sto
FI	Field Installable
FTB	Floating Torque Bar
g	Grams
mm	Millimeters
N	Newtons
NRB/S	Non-Rotary Backspace
PN/PL	Part Number/Price List
Pre-DI	Pre-Dual Impression
Pre-FTB	Pre-Floating Torque Bar
RB/S	Rotary Backspace
SB	Spacebar
SER	Special Engineering Request
SHP	Shop Manual 241-6670
SP	Single Pitch
TII	Technical Information Index
TYP	Type Catalog 241-5687
UBS	Upper Ball Socket
U.S.	United States
W.T.	World Trade

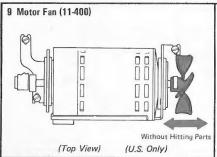


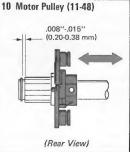
(Level 1)

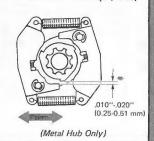


(Level 2)

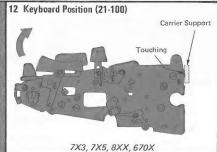
(Level 3)

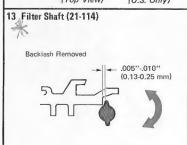




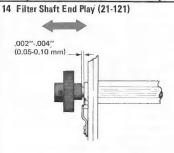


11 Motor Clutch Pawl Stops (11-43)

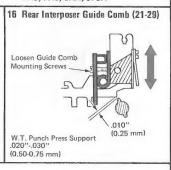


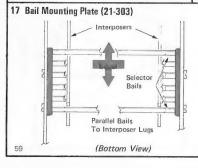


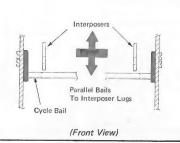
40, 124, 161, 248

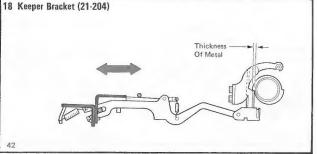


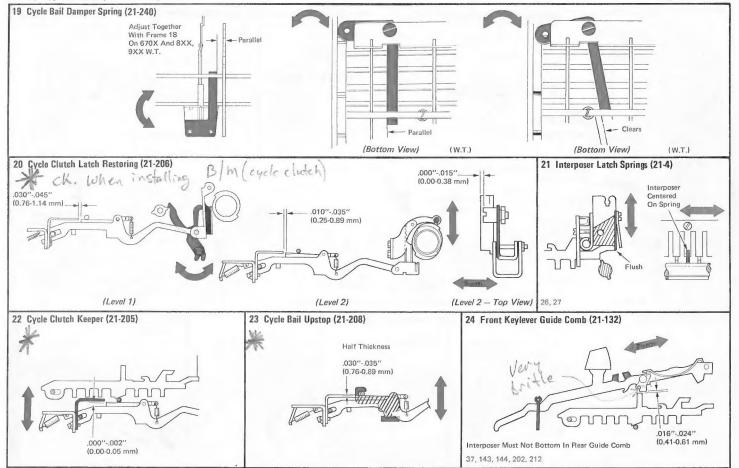




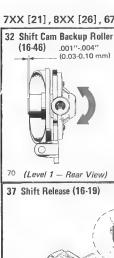




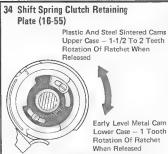




Clears Compensator Tube With Switch In ON Position

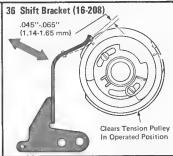


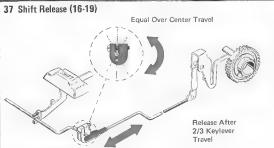


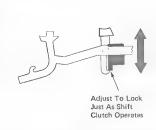


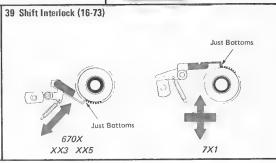
38 Shift Lock (16-37)

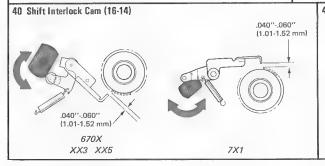


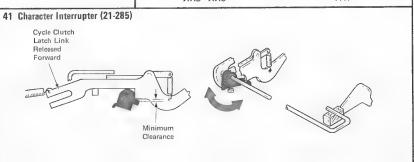


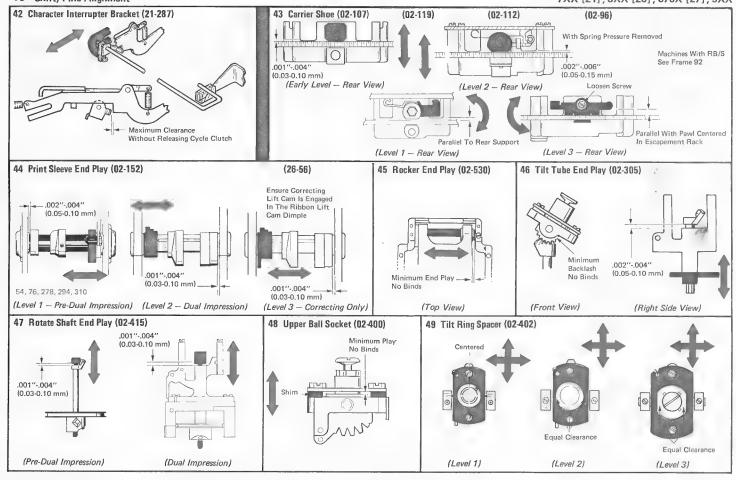




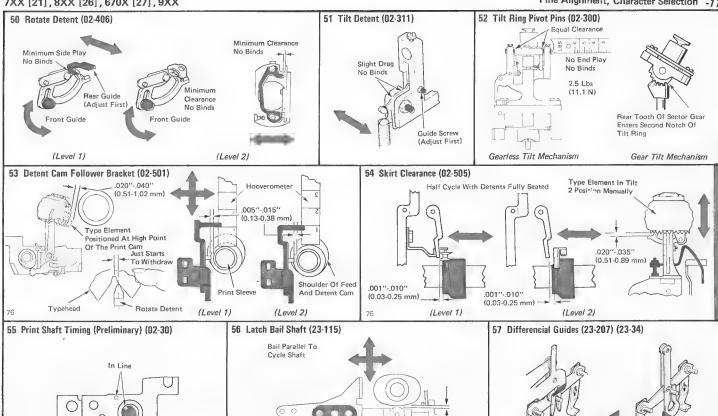




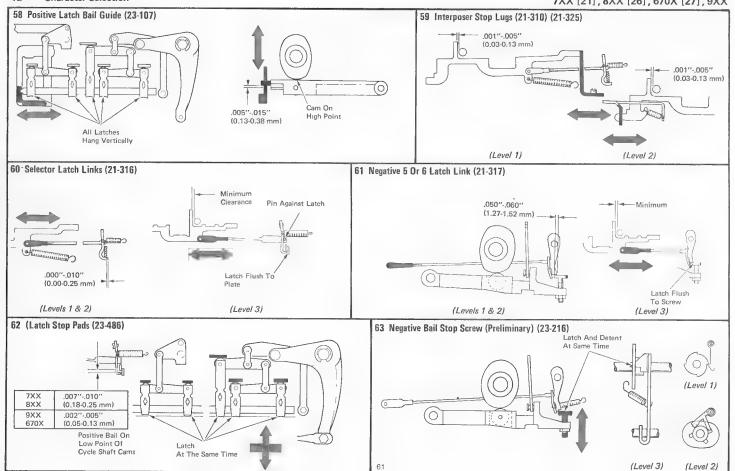


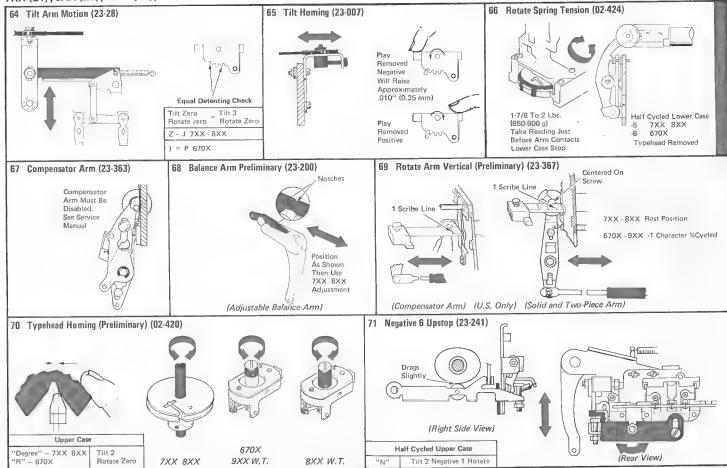


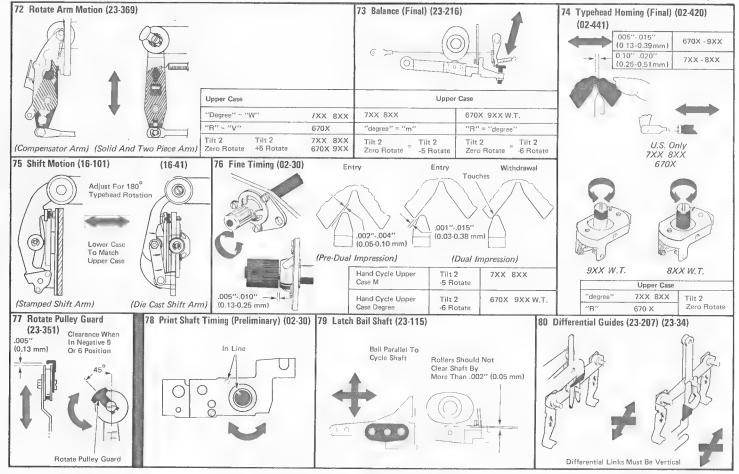
Differential Links Must Be Vertical



Rollers Should Not Clear Shaft By More Than .002" (0.05 mm)





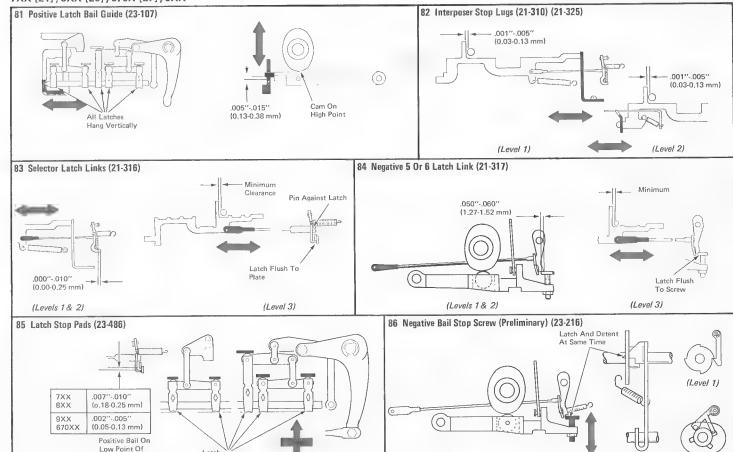


Cycle Shaft Cams

At The Same Time

(Level 3)

(Level 2)



61

Tool

Slot

u

Character

Zero Rotate

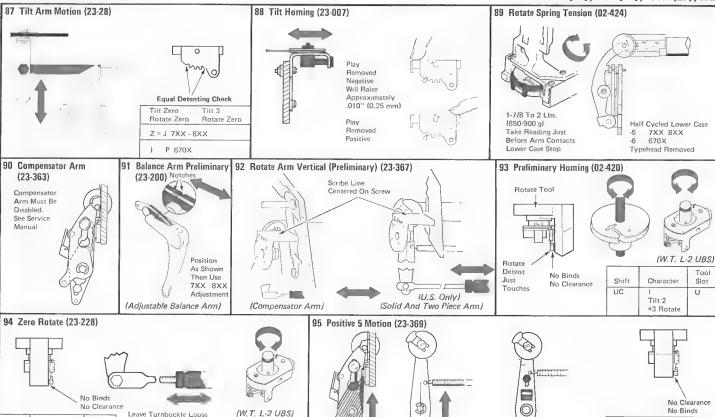
1/4

Tilt 2

Shift

UC

(U.S. Only)



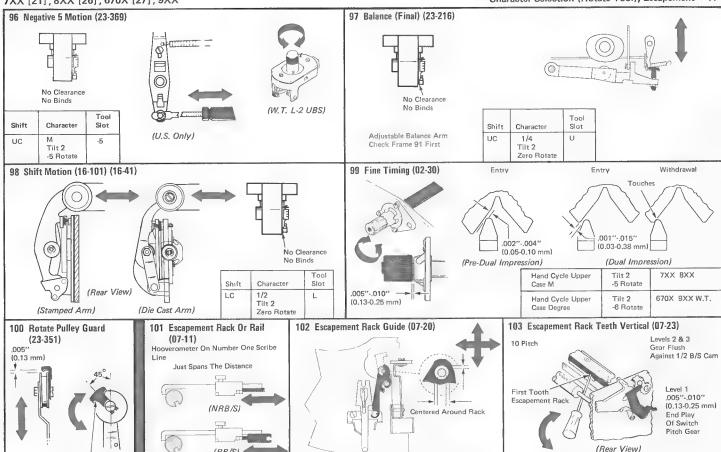
(Compensator Arm)

(Solid Arm)

(Two Piece Arm)

(Dual Pitch Only)

Rotate Pulley Guard

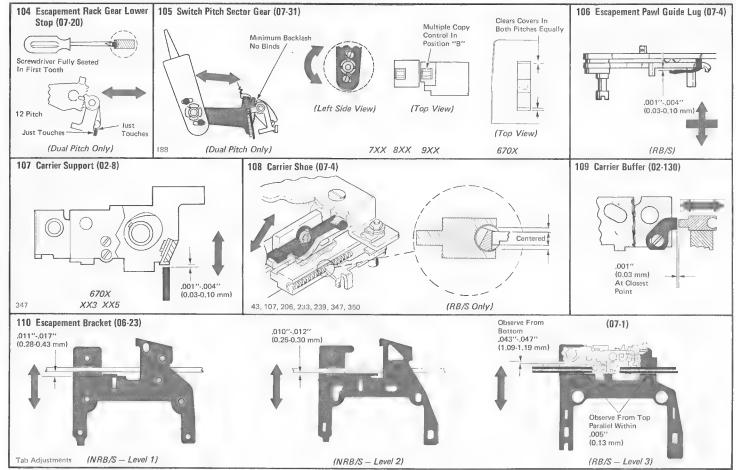


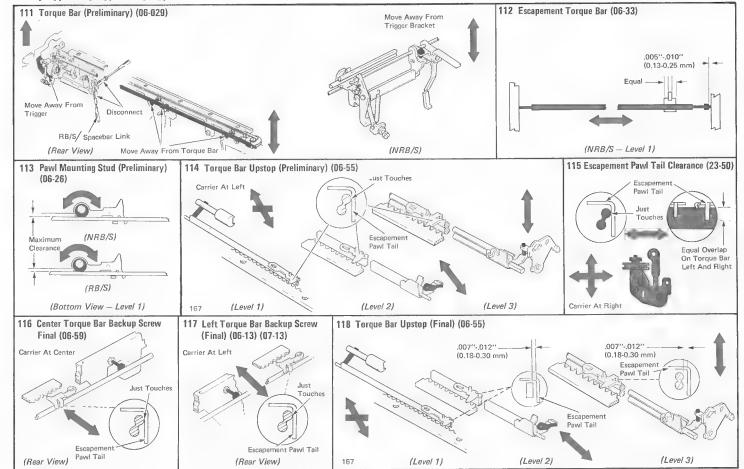
105

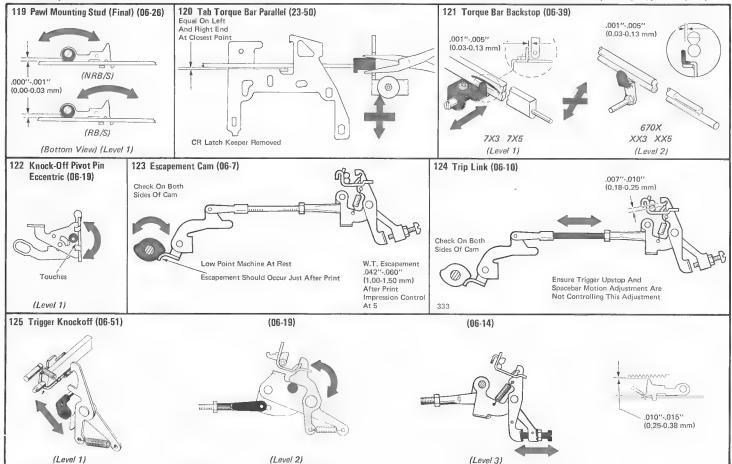
Check At Left, Center, And Right

(Dual Pitch Only)

(Left Side View)



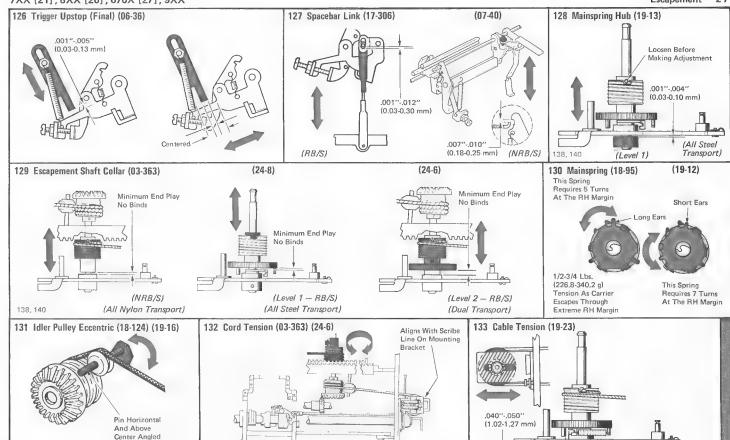




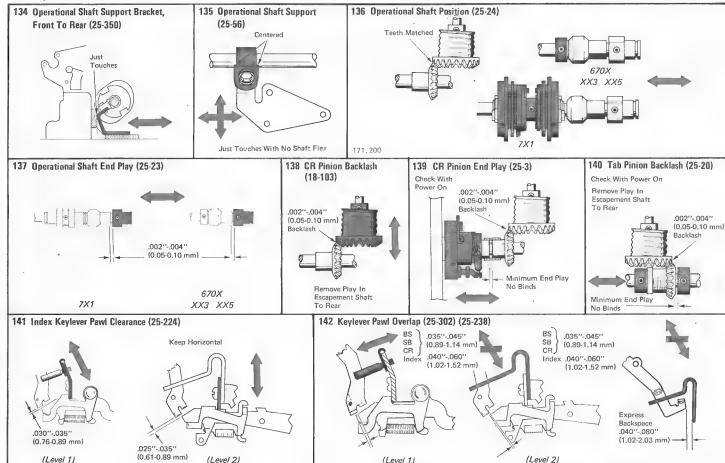
To Left Slightly

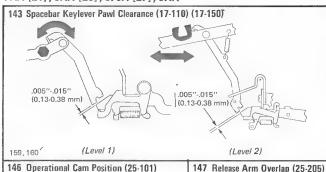
129

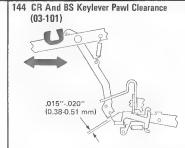
(Level 1) (All Steel Transport)

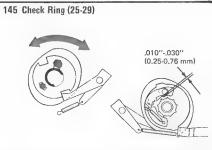


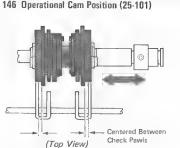
(NRB/S And Level 2 RB/S)

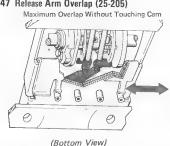




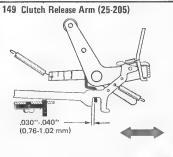


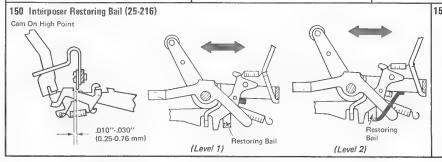


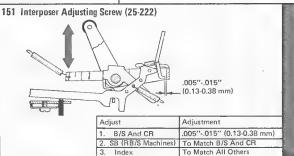


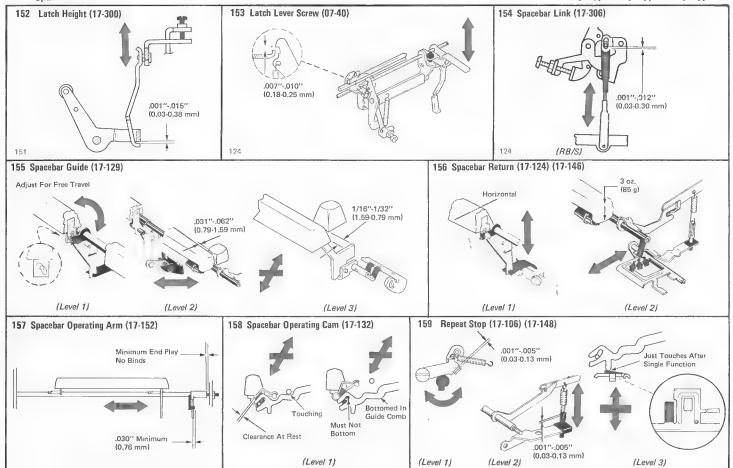










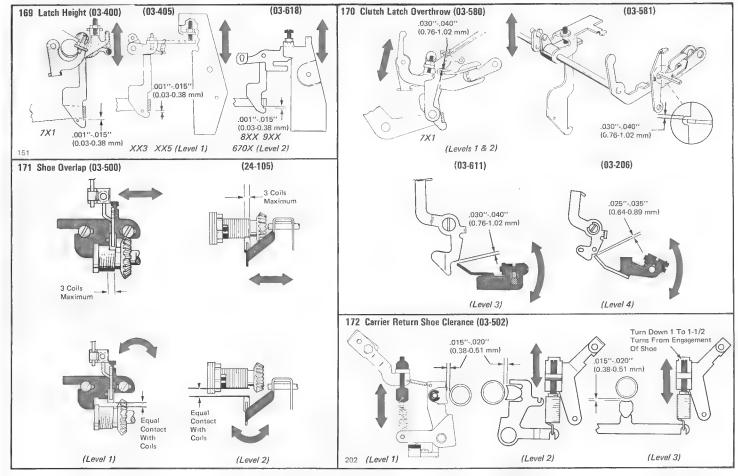


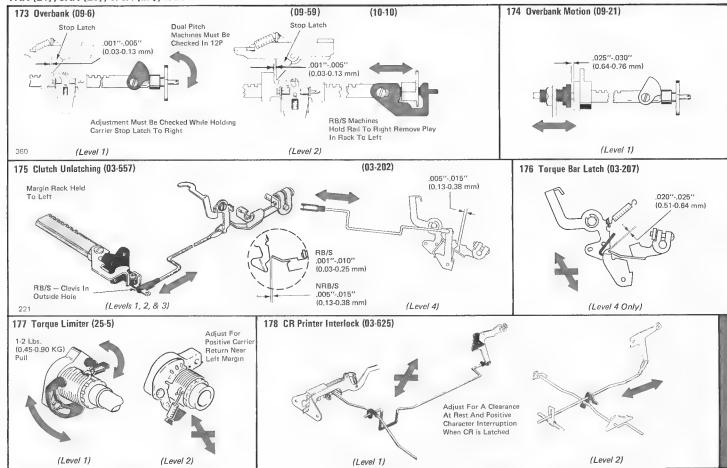
(Level 4 Only)

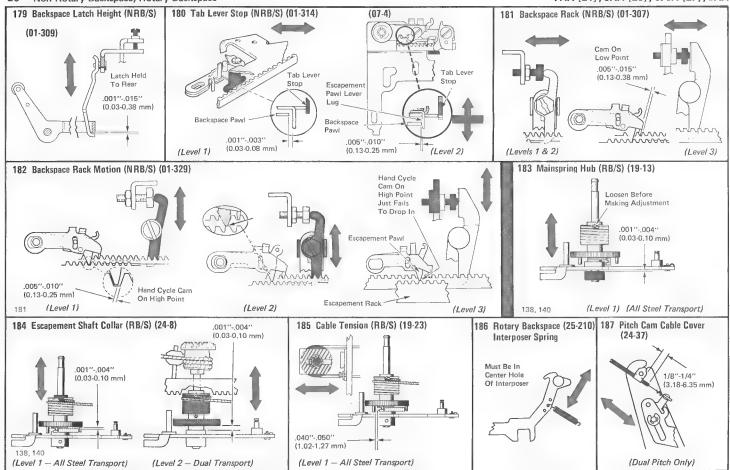
(Level 4)

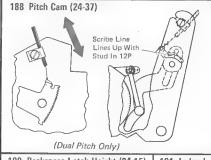
(Level 1)

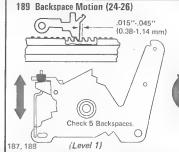
(Levels 2 & 3)

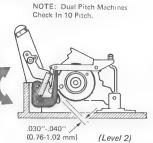


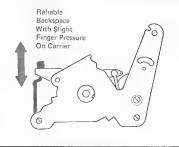




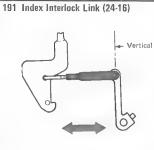


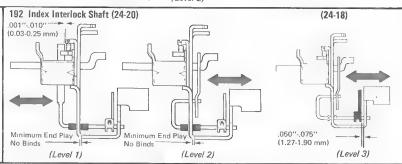


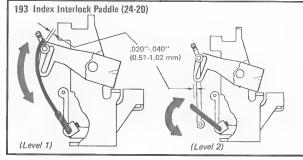


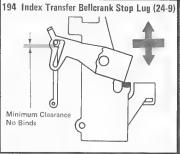


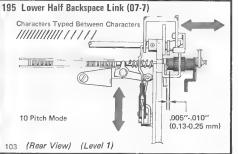


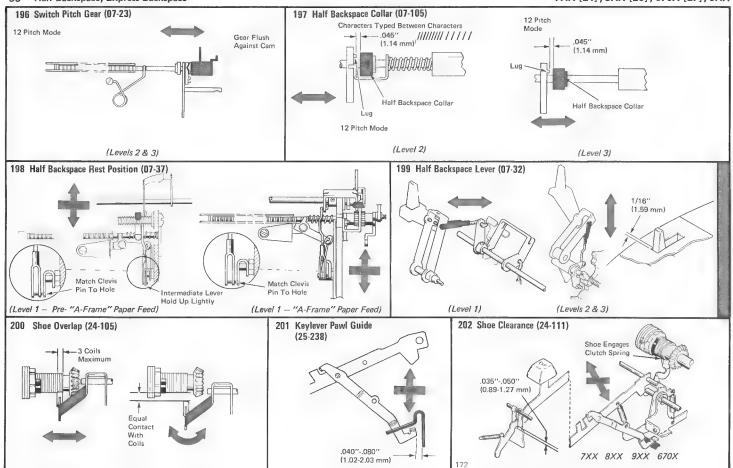




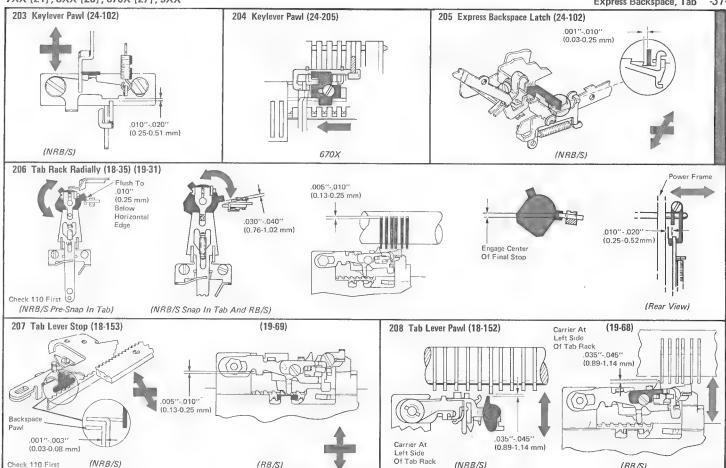




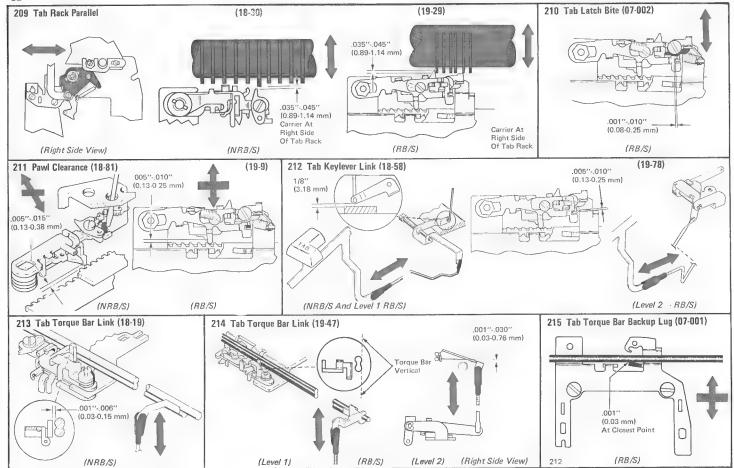


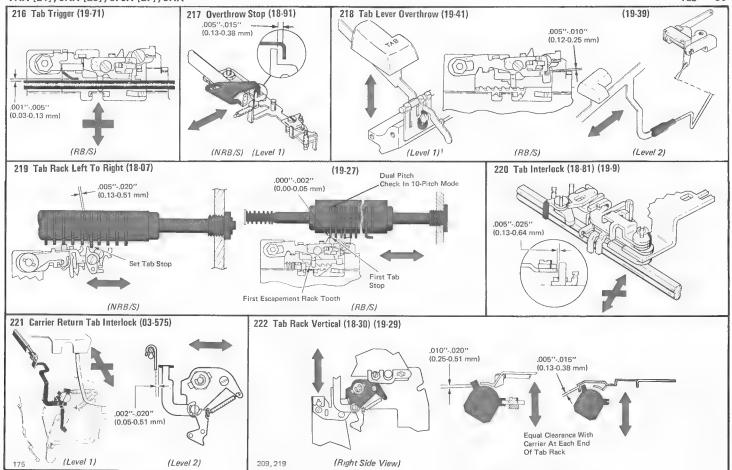


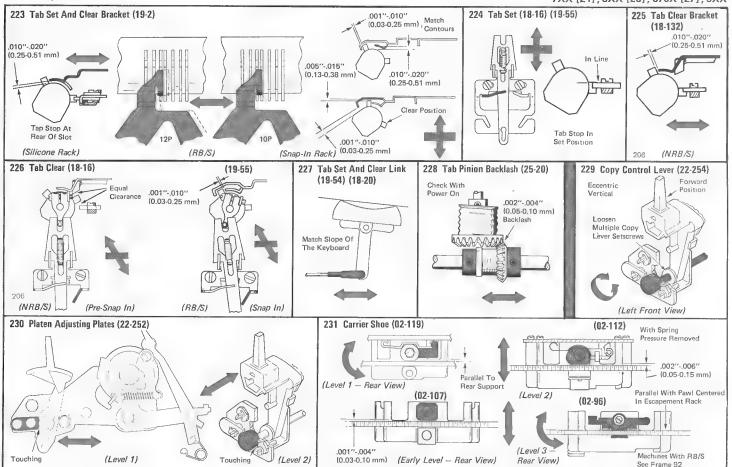
(RB/S)

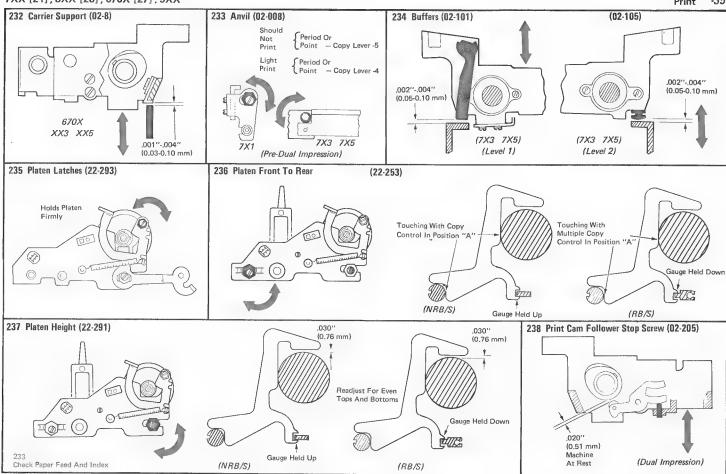


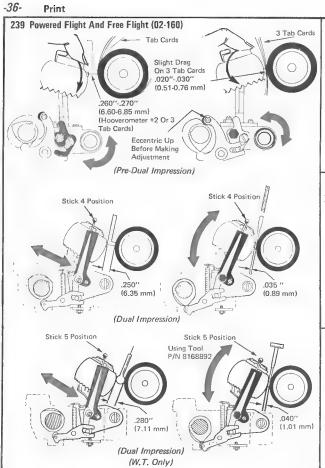
(NRB/S)

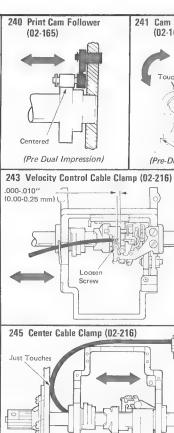






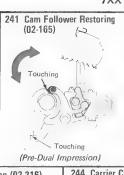




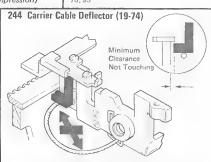


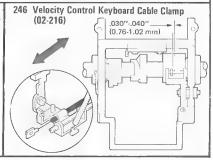
Carrier 2

Spaces From Left Limit





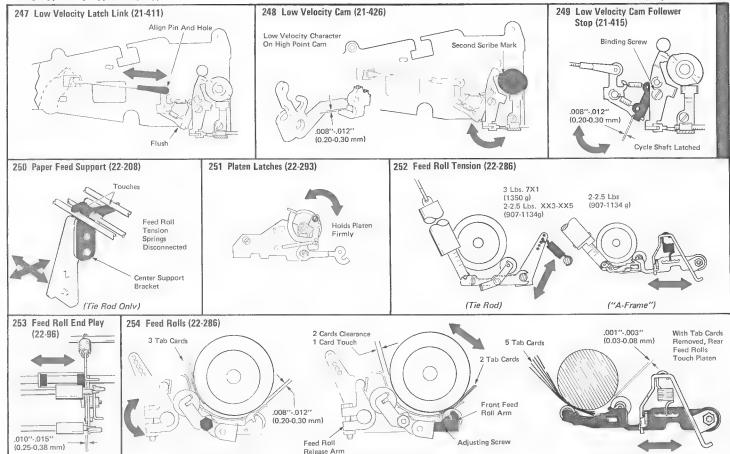




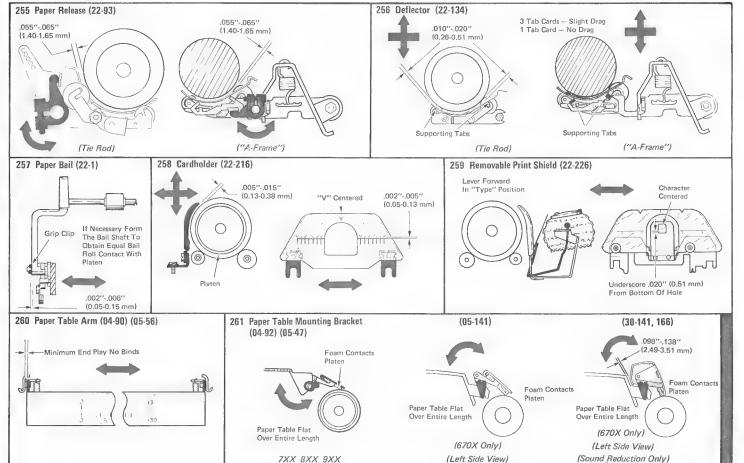
("A-Frame")

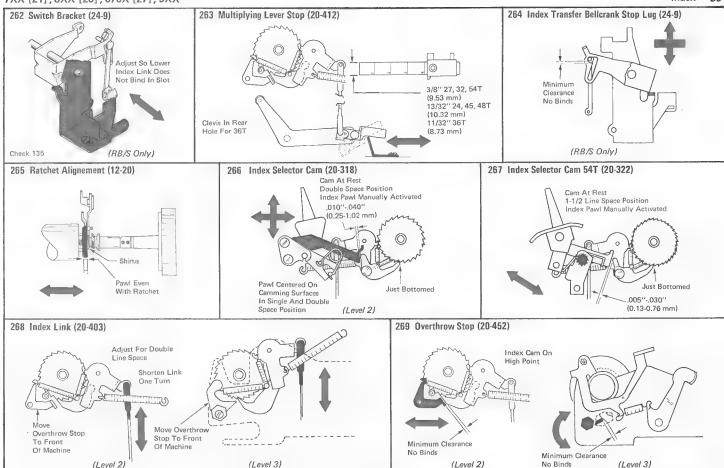
(Tie Rod Only)

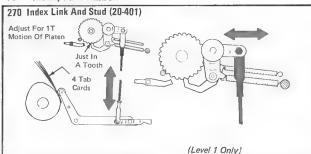
(Level 1 - Tie Rod)



(Level 2 - Tie Rod)





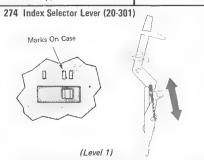


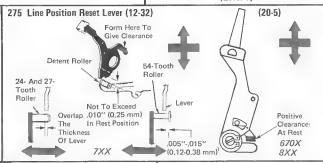


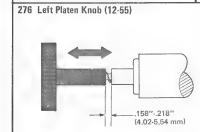


273 Platen Overthrow Stop (20-452)

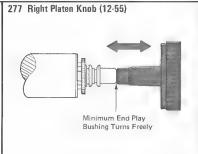
.005"
(0.13 mm)

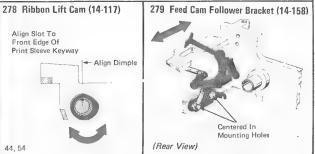


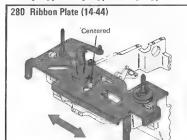


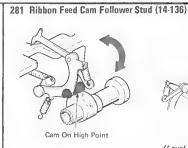


(Level 1)













(Level 1 - Top View)

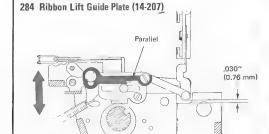
(Level 2 - Top View)





(Level 1 Only)

283 Brake Actuating Lever (14-30) Just Bottoms At Rest (Level 1 Only)







LIFT GUIDE PLATE PARALLEL TO SLOT IN CAM FOLLOWER

.015" (0.38 mm)

LIFT GUIDE PLATE OUT OF B PARALLEL TOO HIGH AT THE REAR

> LIFT GUIDE PLATE OUT OF PARALLEL TOO HIGH AT THE FRONT

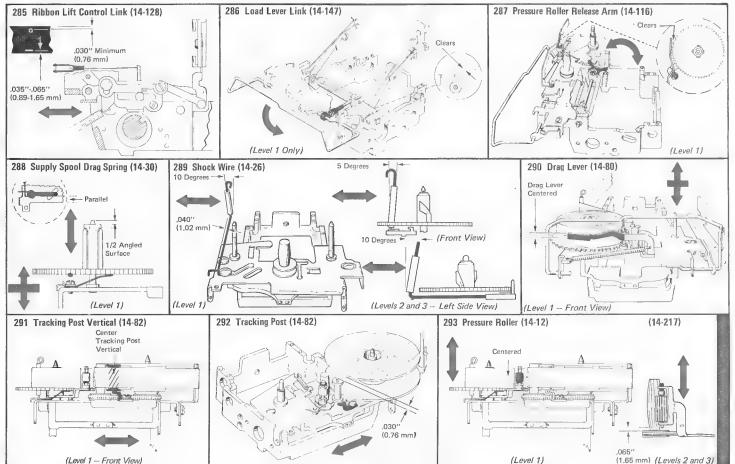


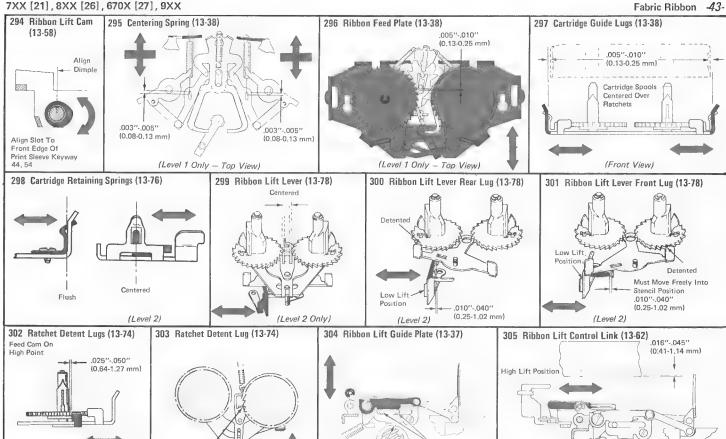
LIFT GUIDE PLATE PARALLEL TO SLOT IN CAM **FOLLOWER**

LIFT GUIDE PLATE PARALLEL TO SLOT IN CAM FOLLOWER

Approximately .050" (1.27 mm)

Approximately .030"

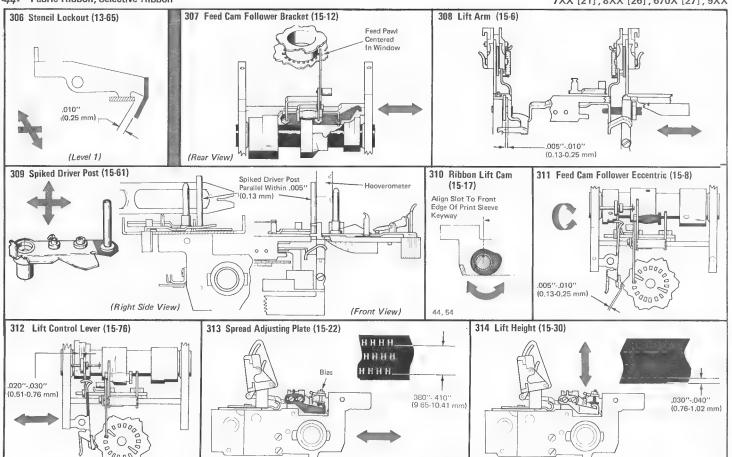




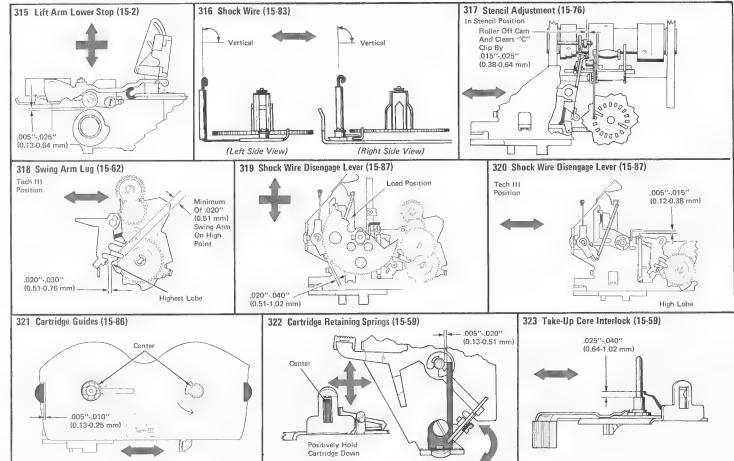
Cam On

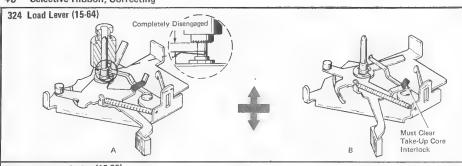
Low Point

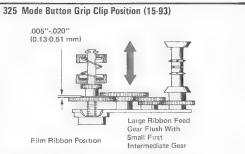
Ribbon Feed Pawl Engage By 1/2 The Depth Of The Tooth Parallel

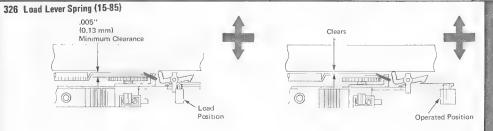


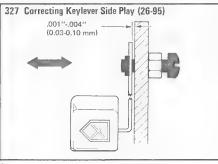
313

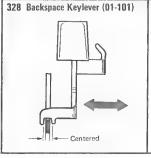


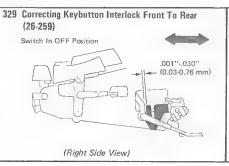


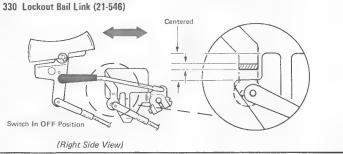


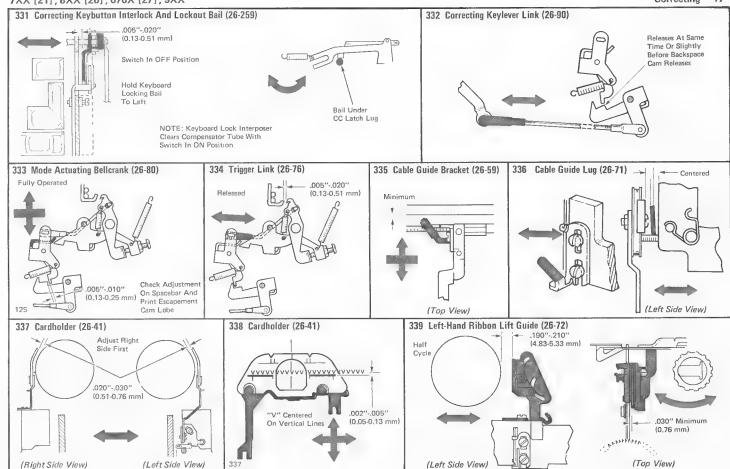




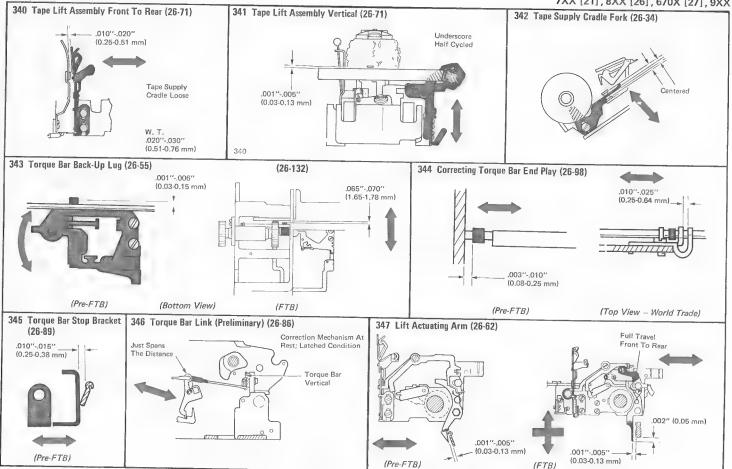




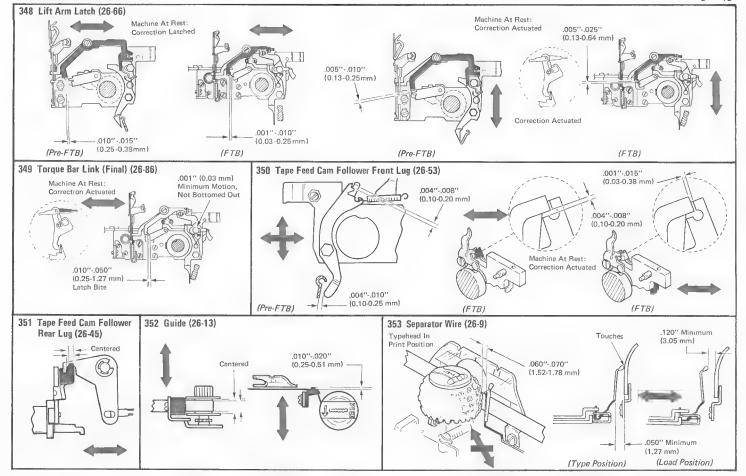




(Left Side View)







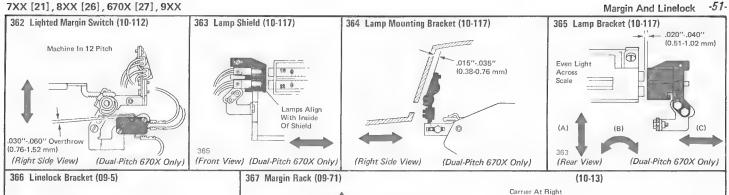
.001"-.005" (0.03-0.13 mm)

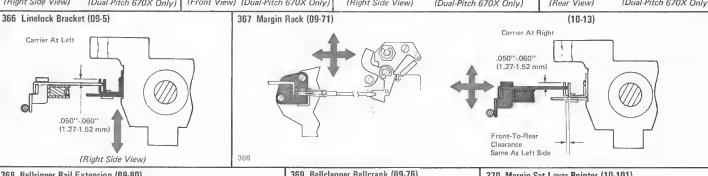
(Dual Pitch)

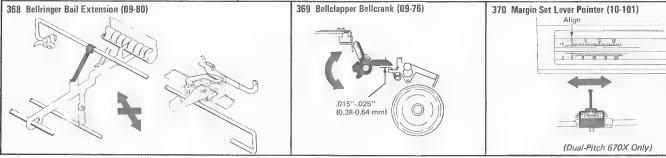
(0.03-0.13 mm)

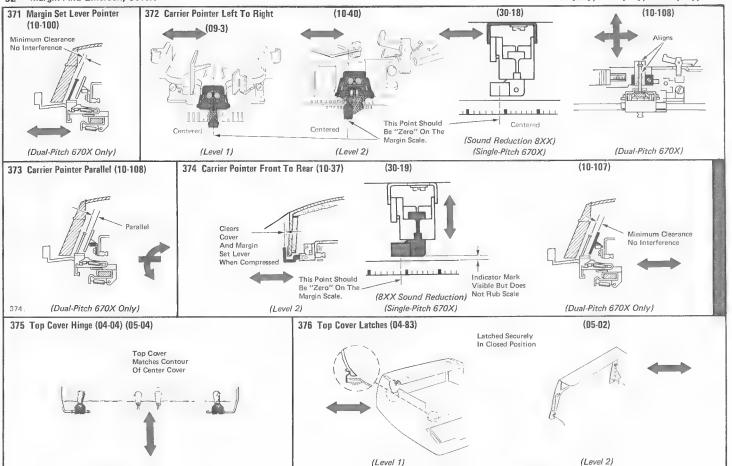
(Dual Pitch Only)

(Level 1 - Single Pitch)

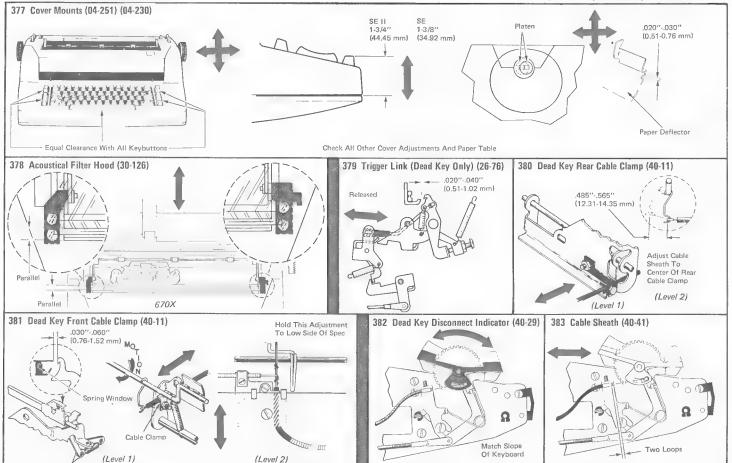


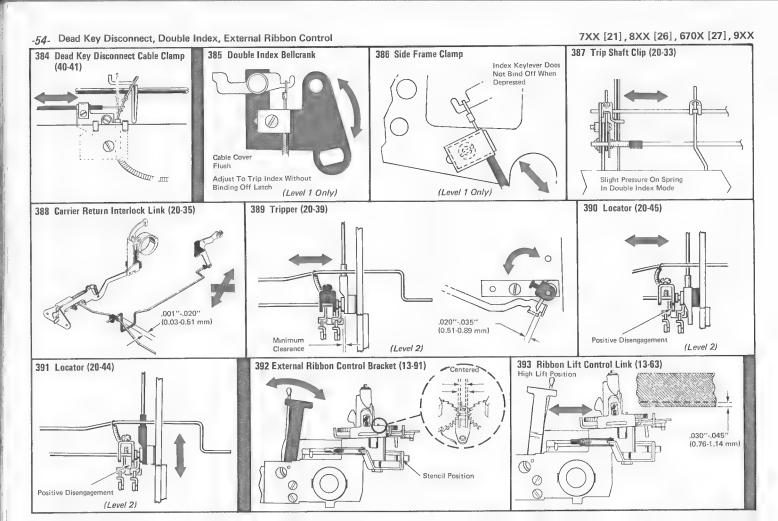


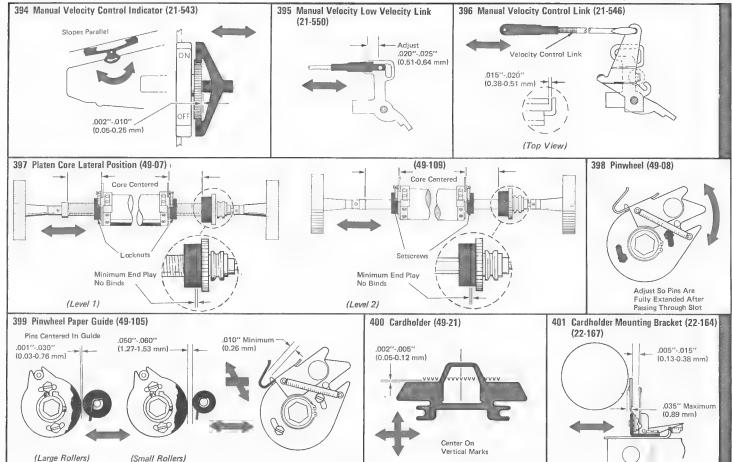






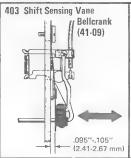


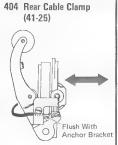


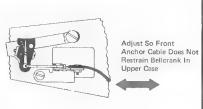


402 Vane Return Spring (41-07) 403 Shift Sensing Vane











SERVICE CALL PROCEDURE

Preventive Maintenance MUST BEPER-FORMED On Each Service Call.

Each Service Call Must Include:

- Note operator comments.
- B. Identify and correct operator complaint.
- C. Initial functional check Look for parts wear, marginal adjustments, and proper lubrication.

With Special Attention To:

- 1. Character Selection
- Keyboard
- Carrier And Rocker
- 4. Cycle Shaft/Gear Train
- Operational Area (Carrier Return, Backspace, Tab, Spacebar, Index)
- 6. Shift
- Repair, replace parts, and lubricate as necessary.
- E. *Perform electrical safety check.
- F. When necessary, remove covers and clean.
- G. All areas visible to the operator (e.g., rubber parts, cardholder, element/type, and covers) must be clean and in good repair.
- H. Perform final functional check.
- Work performed should be discussed with the operator and must be recorded on the history card.

*A visual or physical inspection must be made of the primary wiring on the machine during each service call. Defects in any electrical component must be replaced immediately! Do not wait until the next service call. Always exercise care when working on electrical areas of the machine. Be certain that no action on your part makes the product unsafe or exposes the customer to hazards.

LUBRICATION

The "Selectric" Typewriter will not operate dependably and reliably if it is not thoroughly and properly lubricated.

Use IBM No. 10 oil on the following:

405 Front Cable Clamp (41-18)

- a. Print shaft wipers
- Selector cam shaft bearing
- Margin rack bearing
 Margin stops
- e. Carrier shoe
- . Rotate detent guide, upper and lower
- ball sockets, tilt detent pivots
- g. Motor
- . Selection bail rollers
- . Index pawl assembly
- . All links and clevises at both ends
- Ribbon feed and reverse plate
- Backspace intermediate lever *
- m. Differential assemblies
- operational box assembly
- o. Tilt arm pivot and rotate link stud
- . Rotate arm pivot and rotate link pivot

All functional parts and pivots in

- q. Carbon ribbon drive spring and bearing
 r. Power frame center bearing
- r. Power trame ce
- Platen bushings
- t. Tilt latch mounting stud and bellcrank
- All other rotating or pivoting members at the bearing area which are not excepted in the following lists:

Use IBM No. 23 grease on the following:

- a. Operational ratchets
- b. Keylever return springs
- Interposer latch springs
 Bibbon lift control lever
- d. Middon int control is
- e. Linelock bracket
- f. Filter shaft flutes
- Operational keylever pawl guide studs
 Tape guide
- All cams on print sleeve
- . Ball joint
- Cycle clutch and shift clutch springs
- Feed roll bearing
- Feed roll bearing
- . Cycle clutch restoring cam
- n. Low velocity latch contacts
- . All sliding parts not excepted
- All selective ribbon takeup gears
- All selective ripport takeup gears
- . Selective ribbon lift guide sliding members
- r. Correcting tape feed bellcrank latching
- Correcting tape feed bellcrank latching surface
- Torque limiter spring
- . Element (or silicone grease)

DO NOT LUBRICATE:

- a. Shift brake (braking surface)
- . Gear train
- c. Carrier return and tab pinions

FUNCTIONAL CHECK

MISCELLANEOUS

- Visual Inspection
- 2. ON/OFF Switch, Keyboard Lock
- Margin Set
- 4. Margin Release
- Linelock And Bell
- Scales And Carrier Indicator
- Switch Pitch Lever (Dual Pitch)
- Index
- 9. Shift Lock
- 10. Margin Lights

PAPER HANDLING

- Paper Insertion
- 2. Paper Release
- 3. Multiple Copy Control
- 4. Detent Release
- Platen Variable

CARRIER MOVEMENT (Check all items in both pitches on dual-pitch machines)

- 1. Spacebar And Escapement
- 2. Half Backspace
- 3. Backspace
- 4. Carrier Return
- Express Backspace
- Tab

RIBBON OPERATION

- 1. Ribbon Feed
- 2. Ribbon Lift Pattern
- 3. Ribbon Path And Tracking
- Stencil Position
- Ribbon Reverse (Fabric Ribbon)

PRINT

- 1. Strike Up Check For:
 - Impression
 - Selection
 - c. Alignment

 - d. Keyboard Touch
- e. Shift 2. Repeat Character
- 3. Impression Control

CORRECTING MECHANISM

- Type several characters.
- Depress correcting key.
- Carrier should backspace once.
- Restrike last character.
- a. Character removed (lift-off tape) or character covered (cover-up tape)
- b. No escapement
- 4. Type new character.
 - a. Same position as original character.
 - b. Normal escapement and print should resume.
- 5. Repeat steps 1 through 4.
 - a. No overlap of characters on correcting tape.

ELECTRICAL SAFETY CHECK

For both Per Call and Service Agreement machines, a visual or physical inspection must be made of the primary wiring on the machine during each service call.

VISUAL CHECK FOR ELECTRICAL HAZARDS

- 1. Linecords that have become damaged must be replaced.
- 2. Wires that are cut, rubbing on mechanical parts, or loose in the machine, must be replaced or relocated. Use cable tie or something similar to hold loose
- 3. Whenever a switch cover, wire retainer, or safety shield has been removed for servicing, it must be reinstalled when service is completed.
- 4. Wire connections should only be replaced with wire nuts for crimp-on connectors. Neither tape nor insulating splice should be used.
- 5. Inspect all linecords that pass through holes in metal desks for cuts or markings. When necessary, grommets or tape should be placed over these edges that come in contact with the linecord.
- 6. Check to ensure:
 - a. that all double-insulation components are installed
 - b. that insulating paper isolates capacitors from a machine frame on two-wire products
 - c. that no parts, such as paper clips, staples, etc., have become jammed between electrical components and the machine frame, grounding that component to the machine frame. Check the particular product CEMs for a description of the required components.
- 7. Modifications made by customers to their machines, which expose Customer Engineers to electrical hazards, must be reported to your management.

CAUTION: Unplug the machine before working on electrical area.

A quick visual check of the electrical components in equipment during each service call will reduce the possibility of exposing a customer or CE to electrical shock. Defects in any electrical component must be replaced immediately! Do not wait until the next service call. Always exercise care when working on electrical areas of the machine. Be certain that no action on your part makes the product unsafe or exposes hazards to the customer.

BROKEN TAPES CHECK

Rotate Tape

- 1. Rotate detent clearance (skirt)
- 2. Print shaft timing
- 3. Shift interlock adjustments 4. Defective rotate arm and shift arm
- pullevs
- Tape guide
- 6. Negative latch clearance insufficient
- 7. Latch links: too long/too short
- 8. Popping latches
- 9. Latch angle
- 10. Broken or sticking rotate spring
- 11. Binding on non-greased type element
- 12. Shift arm pulley
- 13. Chips or defects in rotate pulleys
- 14. Rotate pulley key
- 15. Loose screw in differential bracket

Tilt Tape

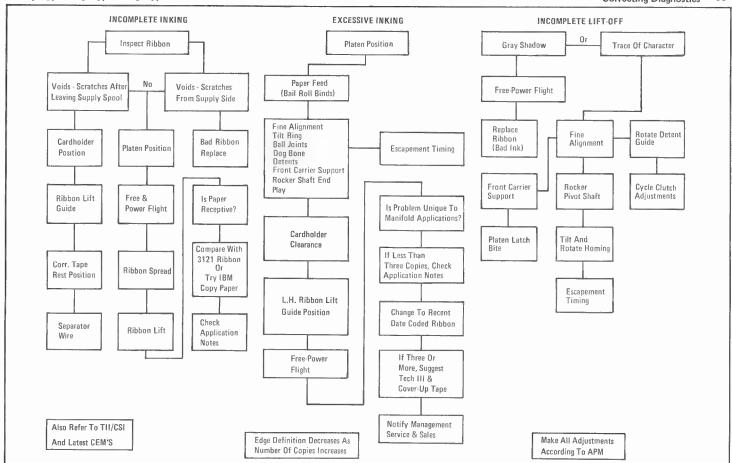
- 1. Detent to tilt ring clearance
- 2. Burrs on tilt pullevs
- 3. Binds in tilt ring
- 4. Sector gear
- 5. Print shaft timing
- 6. Tilt pulley spring (off or broken)
- 7. Loose detent follower
- 8. Tilt tape/carrier shoe eccentric stud

STANDARD U.S. TYPE ELEMENTS 7XX 8XX Tilt Rotate Type											STANDARD U.S. 96 TYPE ELEMENTS Rotate Type															
Latches Used	R-5	R-4	R-3	R 2	R-1	Hotate		R+2	R+3	R+4	R+5	Type Element Positions	Tilt Latches Used	R-6	R 5	R4	R-3	R-2		H	1	R+2	R+3	R+4	R+5	Type Elemen Position
то	1/	#/	8/7	*/8	\$/4	Z/	@/	%/ 5	¢/ ₆	1/0	1/9	Tift T 0	то	1//	<u> </u>	1/9	·/ ₈	\$/4	¢/6	1/0	@/2	%/5	8/,	3/2	2/2	Tilt T-0
Т1	X/x	U/u	D/d	C/c	4	T/ _t	N/n	E/e	K/	H/h	B/b	т1	T-1	1/-	¶/ _S	٧/,	K/	В/ь	c/,	E/e	T/ _t	s/s	1/,	/.	1	Т1
T-2	M	V/	R	A	%	°/!	1/.	"/.	1/1	S	W	Т2	Т2	/	1/4/1/2	H/h	X/,	A/a	N/n	R/r	%	D/d	W/w	M/m	V/.	Т2
T-1, T-2	G	F	1/;	7.	?/,	\frac{1}{i}	† /_a	P/p	Q/	Y/ y	7_	T-3	T-1, T-2	1/:	[/1	G/g	1/1	F/f	Y/ _Y	P/p	Q/q	1/1	/	1/1	/-	T-3
	-5	-5 R-1	-5 R-2	5 R 1 R 2	-5 R-2 R-2A	H O M E	R 1	R-2	R 1 R-2	R 2 R 2A	R 1 R 2 R-2A	Rotate Latches Used		6	6 R 1	6 R 2	6 R 1 R 2	-6 R-2 R 2A	6 R 1 R 2 R 2A	H O M E	R 1	R 2	R 1 R 2	R 2 R 2A	R-1 R 2 R 2A	Rotate Latche Used
	F	LLI	N FO	R OT				MEN.	TS 7X	X 82	ΚX					FILL	IN FO	OR O				EME	NTS			
Tilt Latches Used	R 5	R 4	R 3	R 2	R-1	H O m		R+2	R+3	R+4	R+5	Type Element Positions	THE Latches Used	R-6	R-5	R 4	R 3	R-2	R-1	H	R+1	R+2	R+3	R+4	R+5	Type Elemen Position
T-0	/	/	/	/	/	/	/	/	/	/	/	Tilt T 0	TO	/	/	/	/	/	/	/	/	/	/	/	/	Tilt T-0
T-1	/	/	/	/	/	/	/	/	/	/	/	T-1	Т1	/	/	/	/	/	/	/	/	/	/	/	7	T-1
T 2	/	/	/	/	/	/	/	/	/	/	/	Т2	T-2	/	/	/	/	/	/	/	/	/	/	/	/	T 2
T 1, T 2	/	/	/	/	/	/	/	/	/	/	/	Т3	T 1, T 2	/	/	/	/	/	/	/	/	/	/	/	7	Т3
	5	5 R-1	5 R-2		5 R 2 R-2A	H O M E	R 1	R 2	8 1 R-2	R 2 R 2A	R 1 R-2 R 2A	Rotate Latches Used		-6	6 R 1	-6 R 2	6 R-1 R 2	6 R-2 R-2A	-6 R 1 R 2	H O M E	R-1	R-2	R 1 R 2	R-2A	R 1 R 2 R 2A	Rotate Latches Used

2	1	2A 1 2
Tilt		Rotate

	г	Γ		-		
APPLICATIONS RECOMMENDATIONS FOR IBM RIBBONS	IBM General Purpose Fabric Ribbons	Film Carbon Ribbons (All)	OCR Film Carbon Ribbon	"Special" Film Carbon Ribbon (5122)	IBM Tech III Ribbon	IBM Correctable Film Ribbon
TYPING APPLICATIONS			Ĺ			
Correspondence		X			×	×
Statistical Correspondence	×	X			х	×
Specification Writing	×	х			×	1
Medical Reports	х	х			х	×
Executive Correspondence		λ			х	×
Routine Correspondence	x	Χ.			×	х
Typing on Hard-to-Image Originals	×		×	×	x	
Ex Engineering Drawings				L	_	
Optical Character Recognition		X	×	_	X	
Manifolding		_	_	-	X	_
** Speech Writing	Х	x		_	Х	
Negotiable Instruments	Х	Х		×	Х	
(checks, stocks, etc.)	_					-
* Erasable Bond Papers	X		X	Х	×	
REPRODUCTION APPLICATIONS						
Heat Transfer Copying	×	×	×	×	х	х
Transfer Electrostatic Reproduction	×	Х	х	х	х	х
Direct Electrostatic Reproduction	х	×	х	X	х	Χ
Offset Masters (Direct to Plate)	х	Х		X	×	
Offset Masters (Copier Process)	×	Х	×	×	X	х
Offset Masters (Photo Process)	×	Х			Х	
Stencil Writing (Mimeograph)						
Diazo Process (Ozalid or Bruning)					_	
Spirit Duplication			-		_	
(Hecktographic or Ditto)			L	L.		

- * The receptivity of the surface of these materials vary widely and care must be used in the selection of a specific material, typestyle and ribbon to produce the best result. When in doubt, let the customer try it first,
- Best results with Orator element are obtained by using IBM Tech III Ribbon.

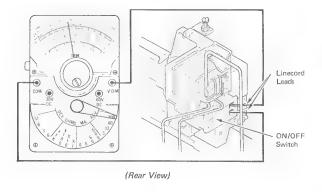


CAUTION

115 VAC may be present.

LINECORD VOLTAGE CHECK

- 1. Make sure the linecord is properly connected.
- 2. Connect the VOM to the ON/OFF switch.
- 3. If 115 VAC is not present, check the following:
 - a. Proper voltage at the power outlet
 - b. Linecord

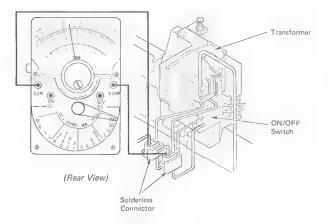


CAUTION

115 VAC may be present.

SWITCH VOLTAGE CHECK

- Connect the VOM to the solderless connector at the points shown.
- 2. If 115 VAC is not present, check the following:
 - a. ON/OFF switch
 - b. Solderless connector



TRANSFORMER VOLTAGE CHECK

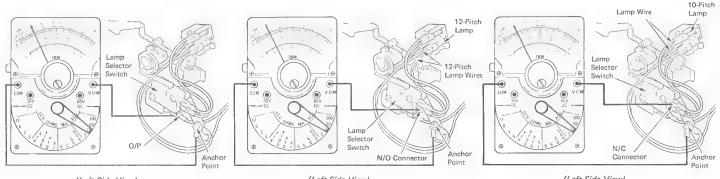
- 1. Connect a VOM to the anchor point and the O/P of the lamp selector switch.
- 2. If 2.3 to 3.0 VAC is not present, check the following:
 - a. Solderless connector
 - b. Transformer

12 PITCH VOLTAGE CHECK

- 1. Connect a VOM to the anchor point and to the N/O
- 2. If 2.3 to 3.0 VAC is not present, check the following:
 - a. Lamp selector switch
 - 12-pitch lamp
 - c. 12-pitch lamp wires

10 PITCH VOLTAGE CHECK

- 1. Connect a VOM to the anchor point and to the N/C connector.
- 2. If 2.3 to 3.0 VAC is not present, check the following:
 - a. Lamp selector switch
 - b. 10-pitch lamp wires
 - c. 10-pitch lamp

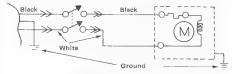


(Left Side View)

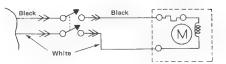
(Left Side View)

(Left Side View)

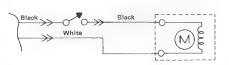
MOTOR WIRING DIAGRAMS



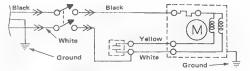
3-Wire Shaded Pole Motor Diagram



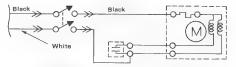
Double-Insulated Shaded Pole Motor Diagram



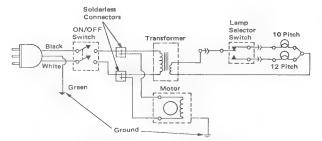
2-Wire Double-Insulated Shaded Pole Motor Diagram (Single Pole Switch)



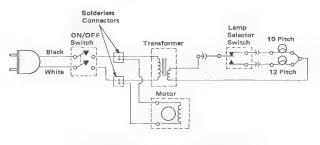
3-Wire Capacitor - Start Motor Diagram



Double-Insulated Capacitor - Start Motor Diagram



Dual-Pitch 3-Wire Double Insulated Shaded Pole Motor
"Selectric" III



Dual-Pitch 2-Wire Double Insulated Shaded Pole Motor "Selectric" III

BACKSPACE (NR B/S)

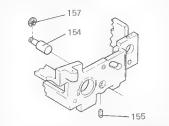
MECH, CODE 01

LEVEL 3 FOR ROTARY BACKSPACE PARTS SEE MECH 24 SEE MECH IS 320 SEE MECH 25 304 · X X 3 AND X X 5 LEVEL 2 LEVEL I 328-XX3 AND XX5

CARRIER

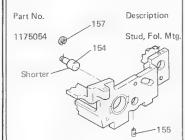
Predual Impression Machines

This stud, P/N 1124176, is used as a replacement part on all machines not equipped with dual impression which have the original "non-faced" carriers.



Early Dual Impression Machines

This stud, P/N 1175054, must be used on the early dual impression machines. The follower, P/N 1141619, must also be replaced to ensure compatibility. This procedure is necessary because the early DI carriers were "non-faced," Note: Use washer, P/N 1164290, to reduce side play.



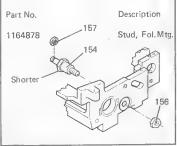
Predual Impression Machines With New Carrier

This stud P/N 1164865 and nut, P/N 6503, must be used with a carrier change on all machines not equipped with dual impression. This is necessary because all field replacement carriers are "faced" and do not have a setscrew hole for mounting the original stud.

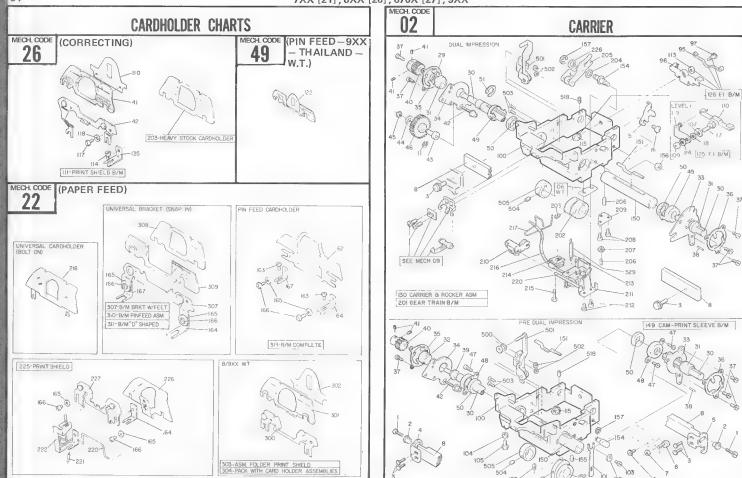
Part No. Description 1164865 Stud, Fol. Mtg. 6503

Current Level Machines

This stud. P/N 1164878 and nut. P/N 6503, can be used on all dual impression carriers that are "faced." It must be used with the new print cam follower, P/N 1141619.

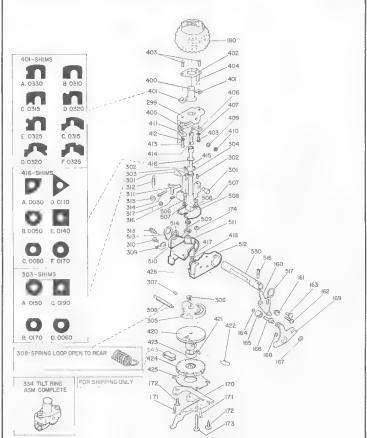


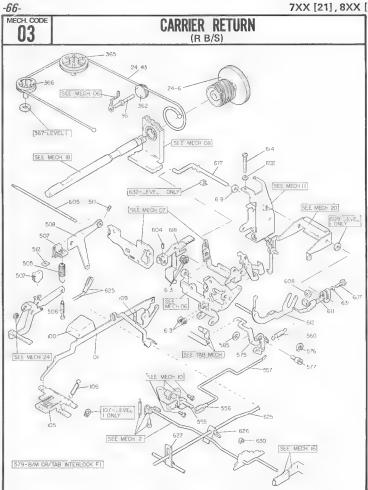
7XX [21], 8XX [26], 670X [27], 9XX

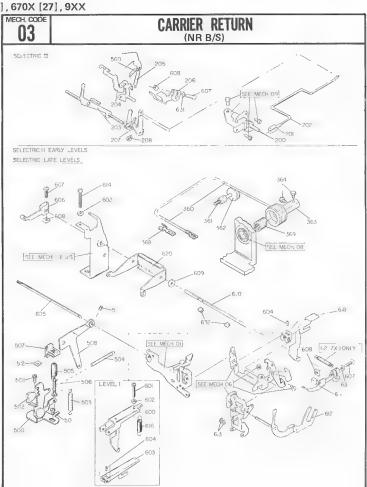


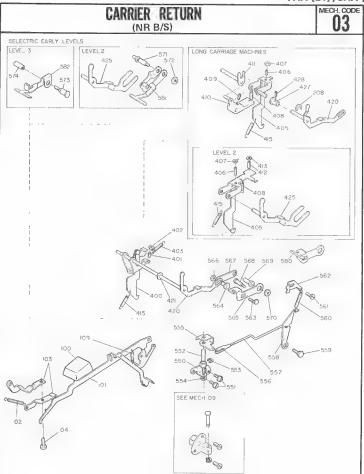
MECH, CODE ROCKER 02 (GEARLESS TYPE TILT) 180 COMPLETE ASM. SEE TYPE CATALOG 400 335 TILT RING ASM. SPRING BIAS 408 LEVEL I 522 SELECTRIC III. 8 9XX WORLD TRADE 302 -9XX WT 441 312-0 313-0 315 314 317.0 429 333 TILT RING ASM 223 224 LEVEL I 416 LEVEL I 424 324 G-025 PRE-DUAL (336 TILT PULLEY B/M PRE-DUAL IMPRESSION **IMPRESSION** 528 ROCKER ASM, B/M PRIOR TO D.I. 172 -535 DETENT SUPPORT & LEVER B/M 540 DUAL IMP YOKE & ROCKER B/M 170 -

ROCKER (GEAR TYPE TILT) MECH, CODE

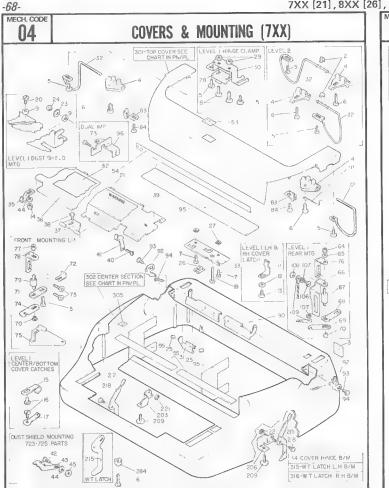


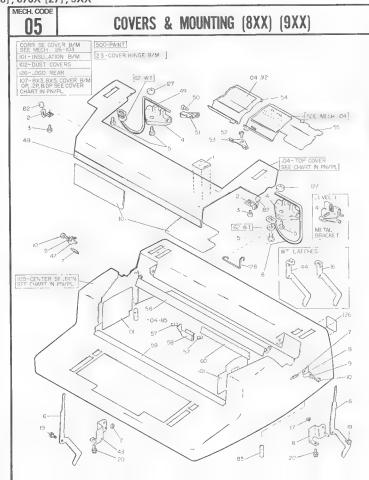






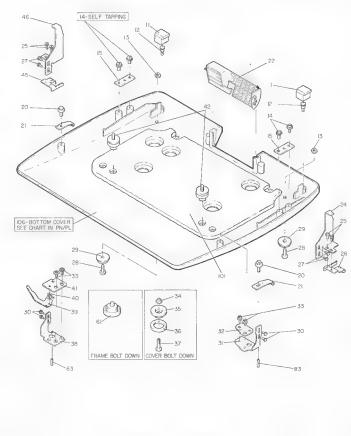
MECH, CODE **COVERS & MOUNTING (7XX)** 04 W T GROUNDING 303-BOTTOM COVER SEE CHART IN PN/PL LEVEL 2 PAINT SEE MECH 05-500 91-PAPER TABLE B/M 56-DUST COVER 95-B/M SOUND INSULATION 100-B/M COVER LATCH ADAPTOR 304-B/M COVERS (SEE CHART IN PN/PL) 285-B/M SHOCK MOUNTS FRAME COVER BOLT DOWN BOLT DOWN



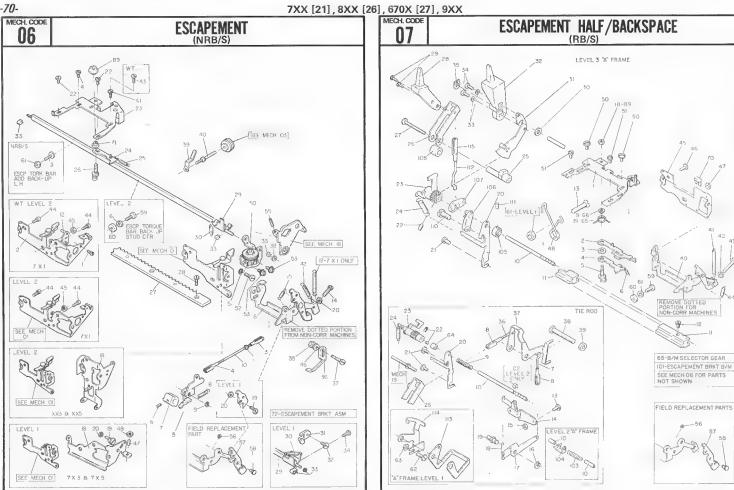


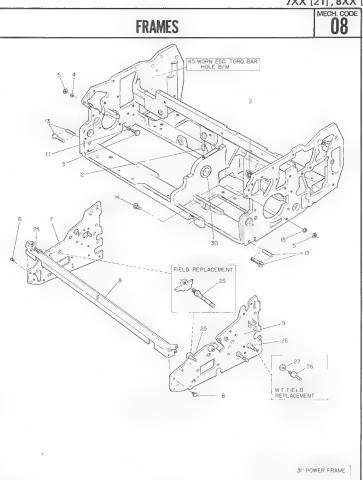
COVERS & MOUNTING (8XX) (9XX) (670X)

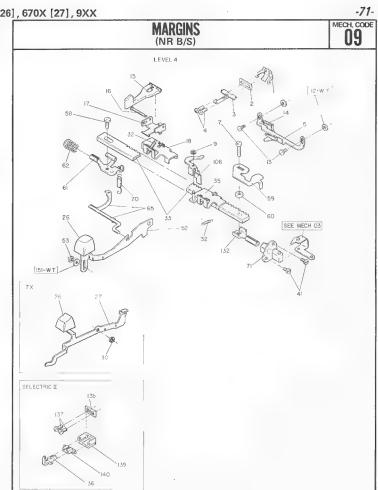
MECH. CODE 05

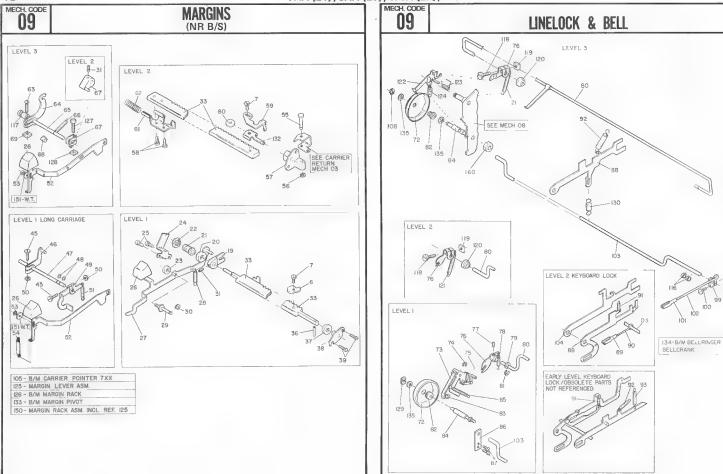


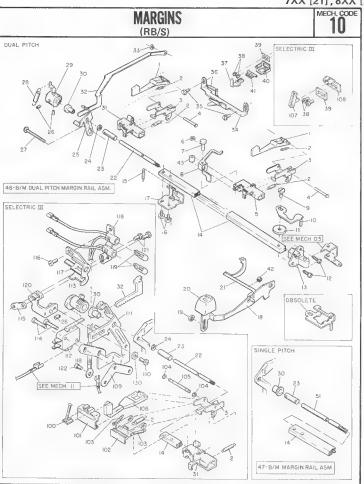
MECH, CODE **COVER (670X)** 171-B/M COMPLETE COVERS SEE CHART IN PN/PL 200-COVER HINGE B/M -72-INSULATION B/M

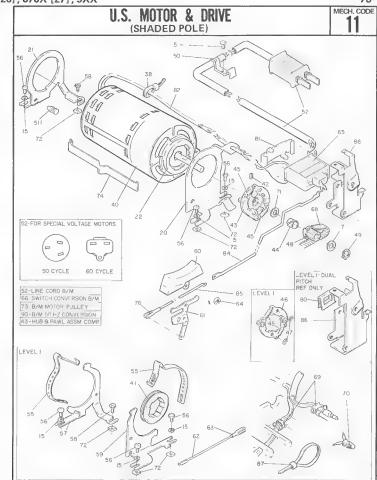


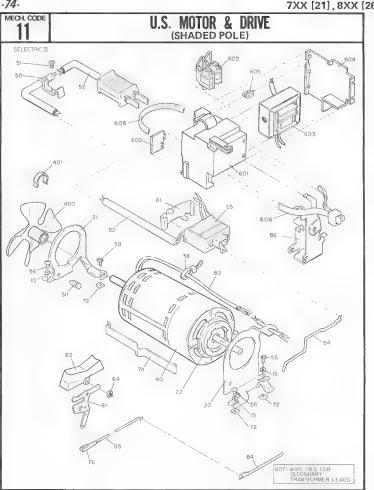


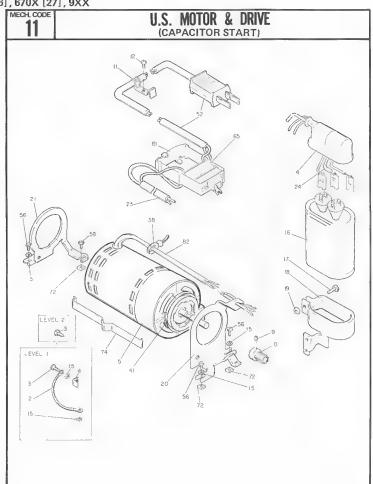


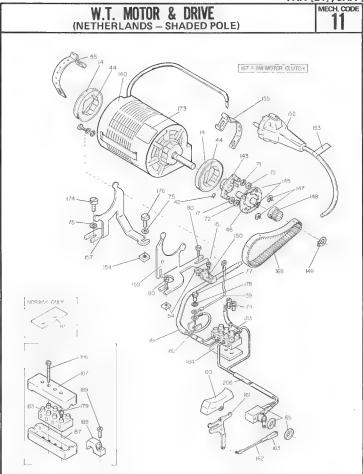


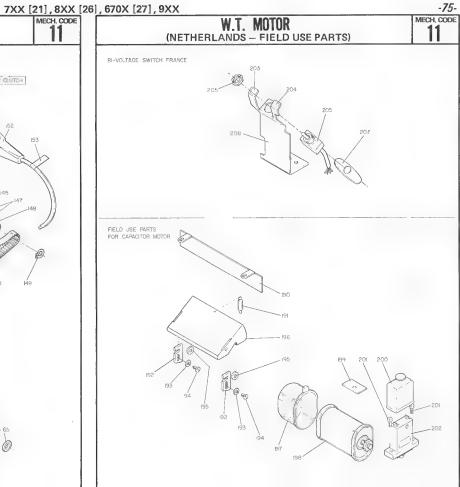


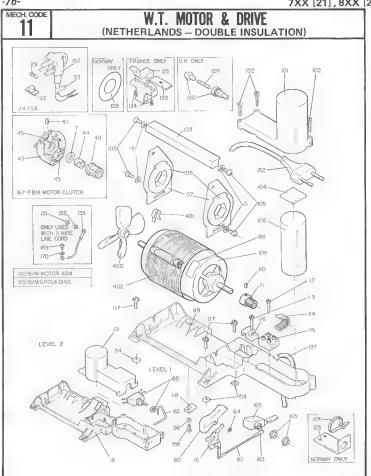


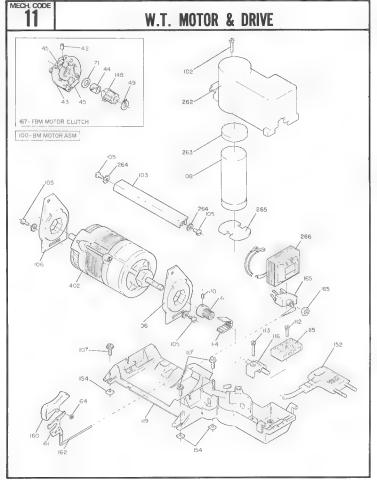












MECH, CODE

7XX [21],8XX [26],670X [27],9XX

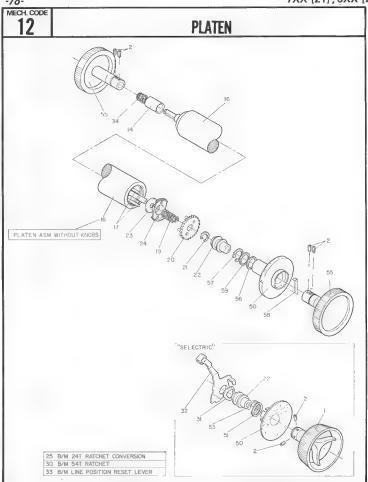
MECH, CODE W.T. MOTOR & DRIVE (CANADIAN – SHADED POLE) 254, 253 -243 248

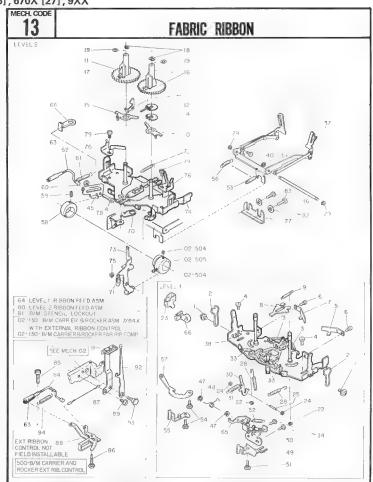
W.T. MOTOR & DRIVE (CANADIAN – DOUBLE INSULATION)

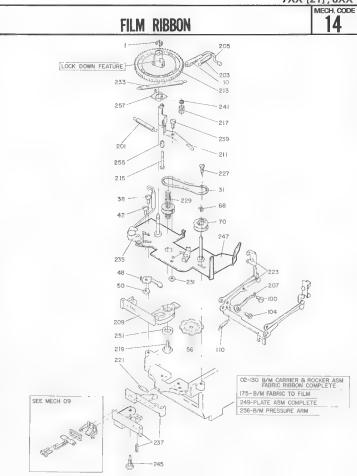
> 73 - B/M MOTOR PULLEY 360- LABEL, ADDITIONAL 365 - NOISE REDUCTION PACKAGE 370- B/M MOTOR

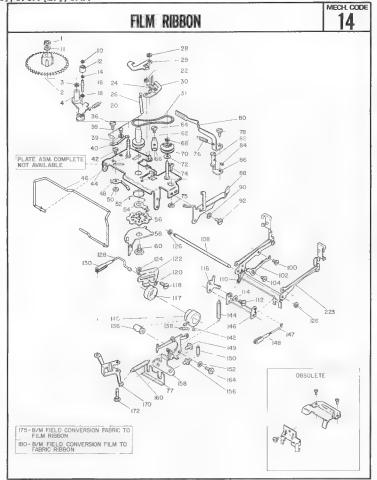
> > 328

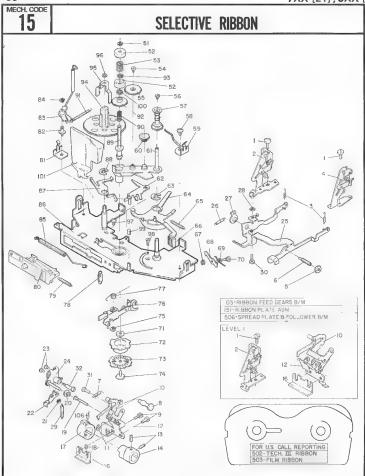


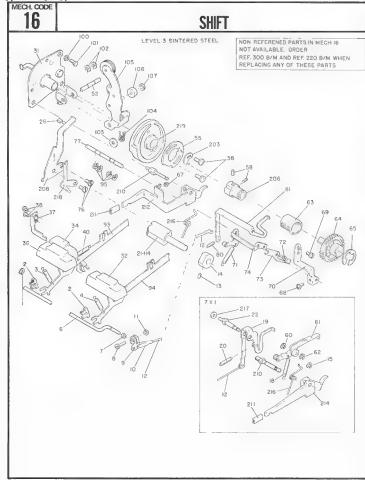




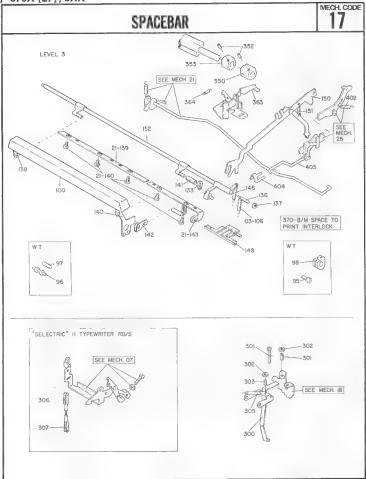


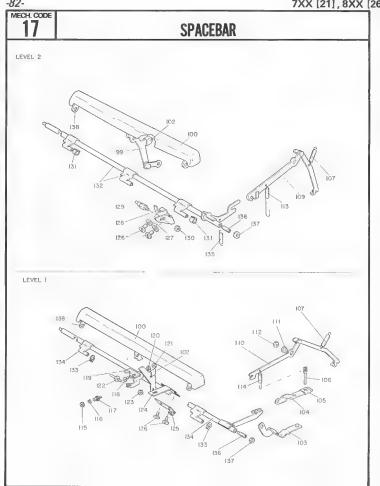


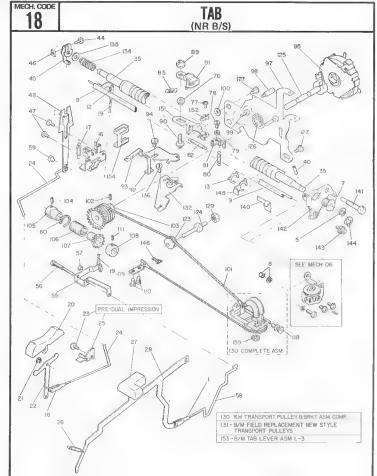


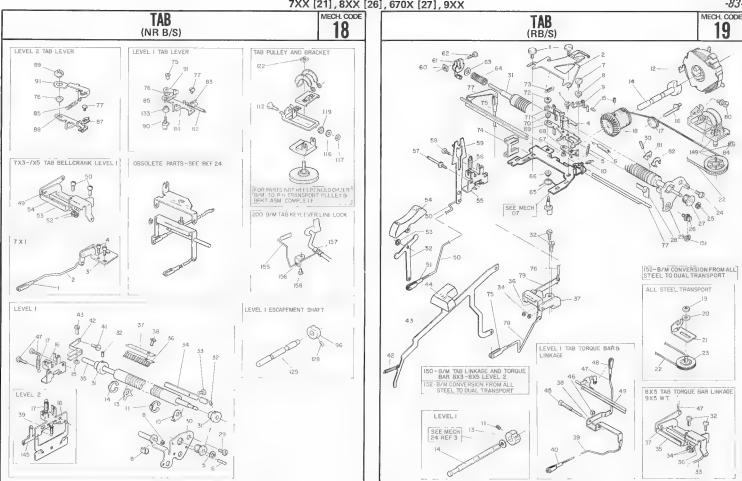


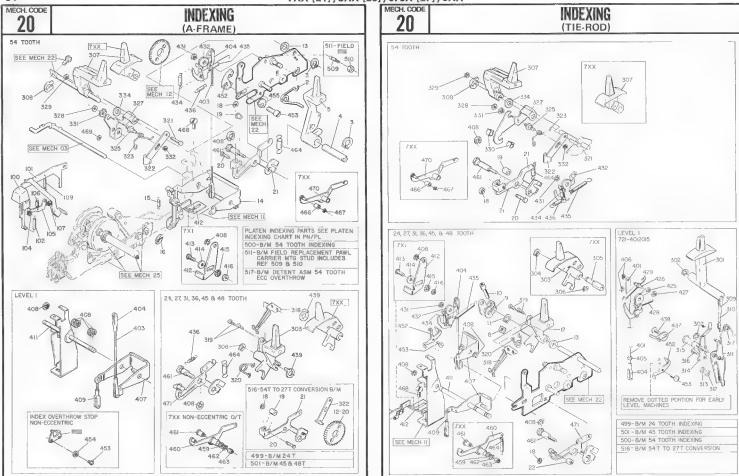
16 SHIFT LEVEL 2 /X PLASTIC CAM EVEL 2 XX3 AND XX5 PLASTIC CAM LEVEL 1 7X1 STEEL CAM LEVEL I XX3 AND XX5 STEEL CAM NON-REFERENCED PARTS NOT AVILABLE ORDER REF 300 B/M AND REF, 220 B/M WHEN REPLAC-ING ANY OF THESE PARTS

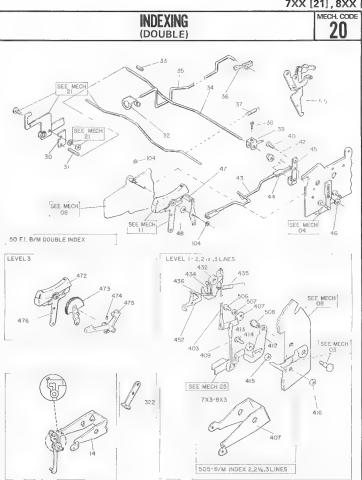


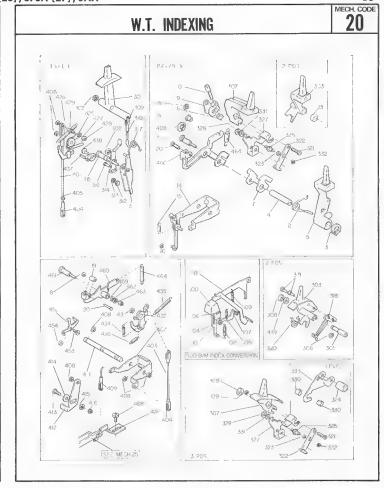


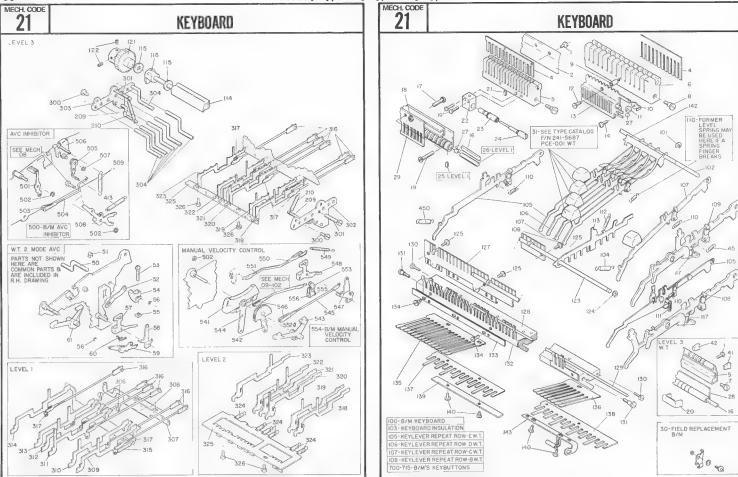


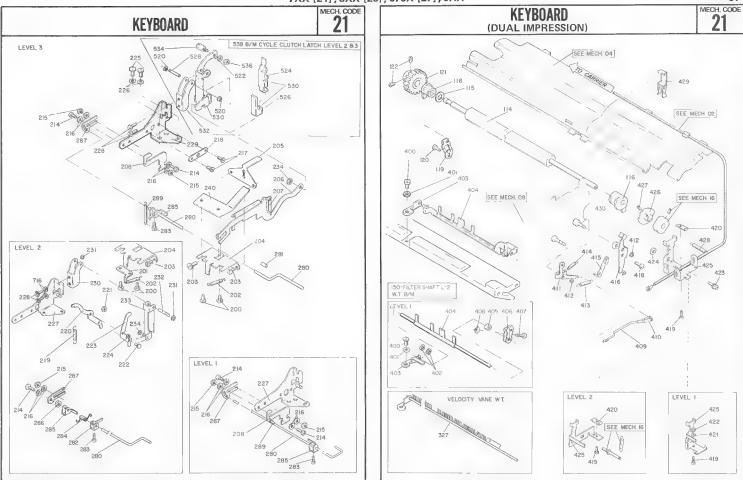


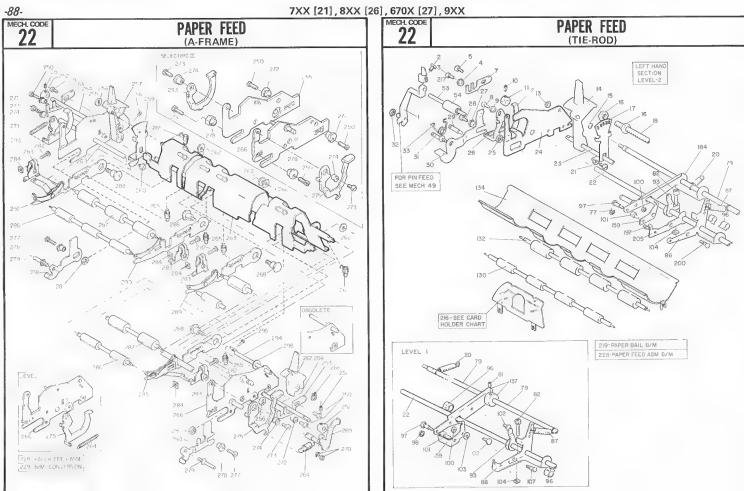


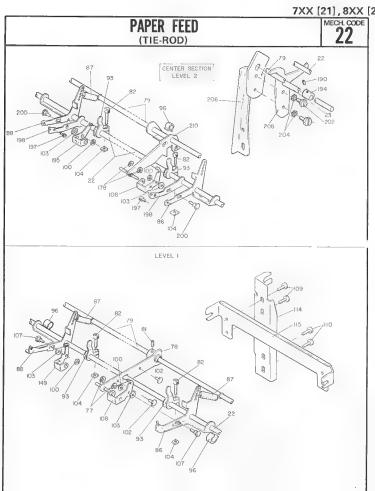


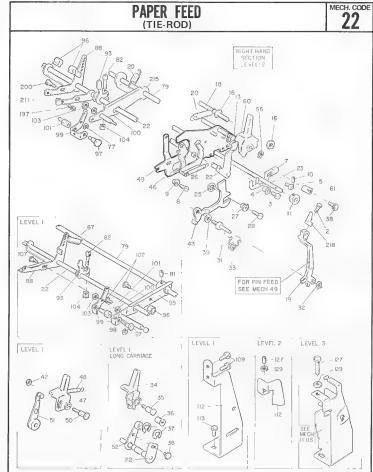


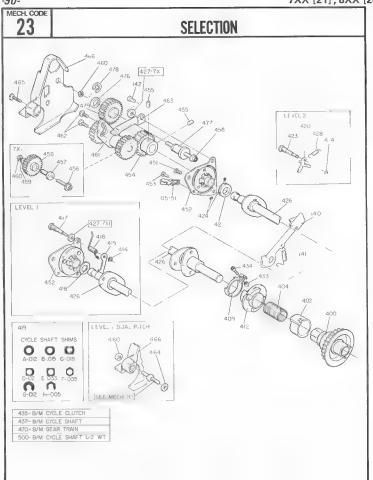


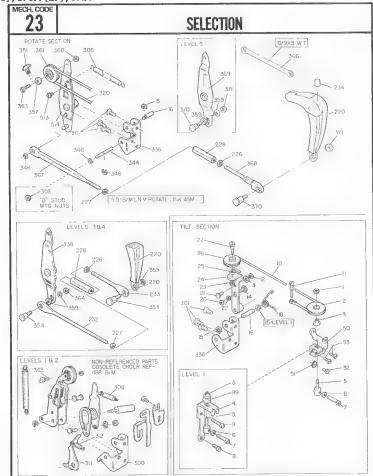


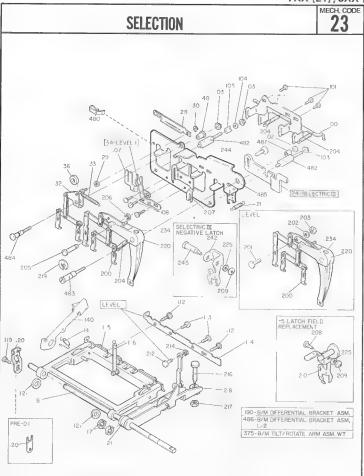


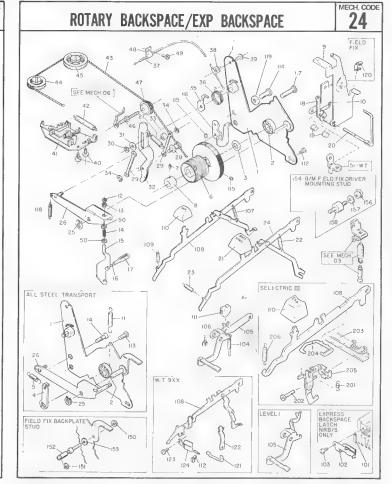


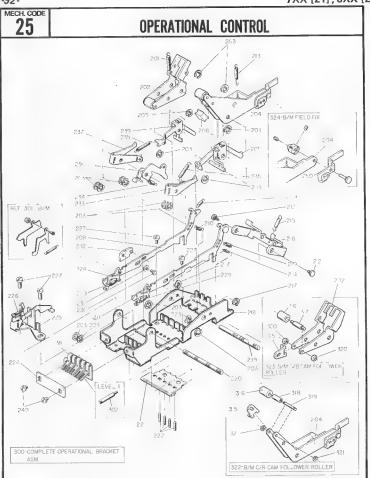


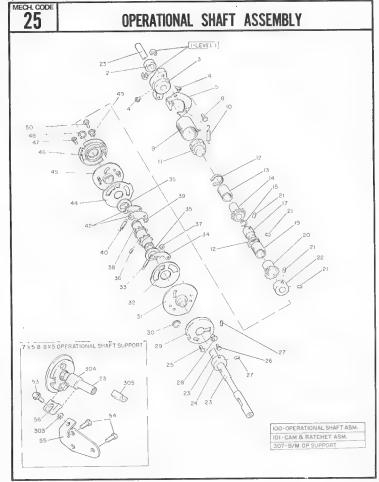


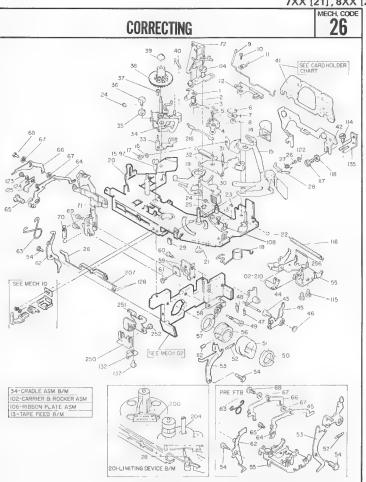


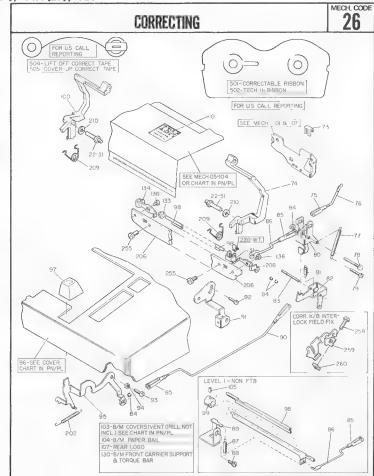


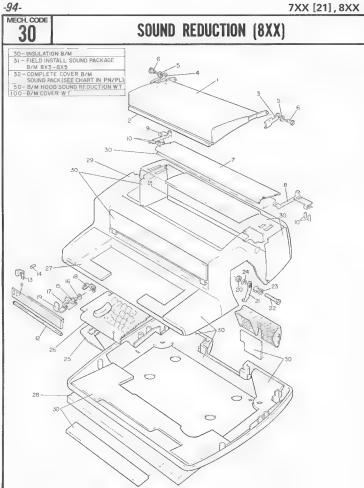


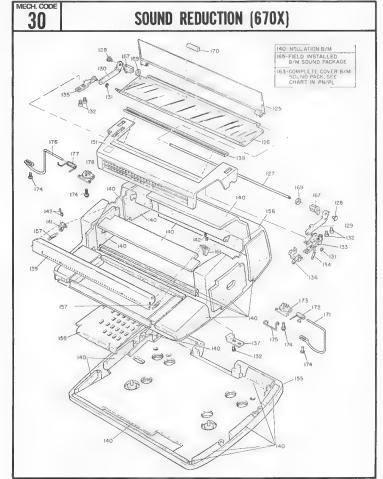


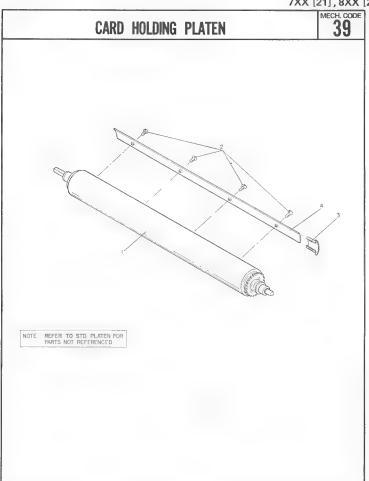


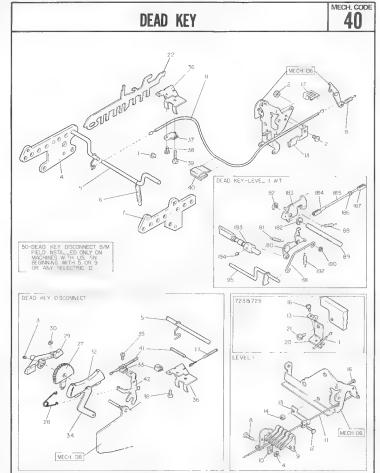


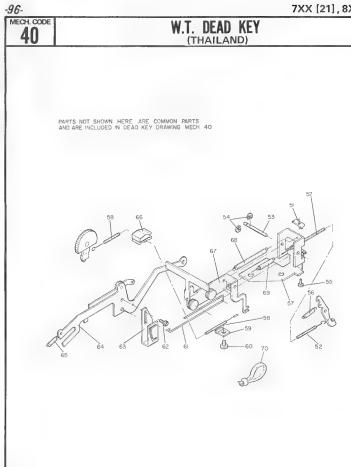


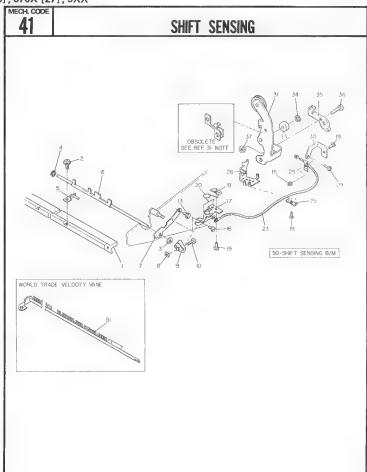






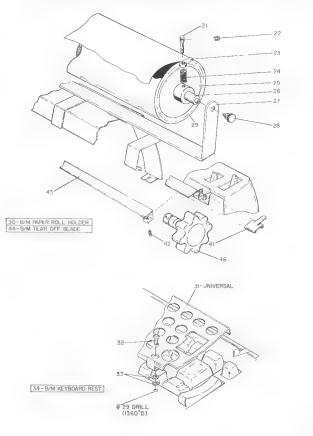






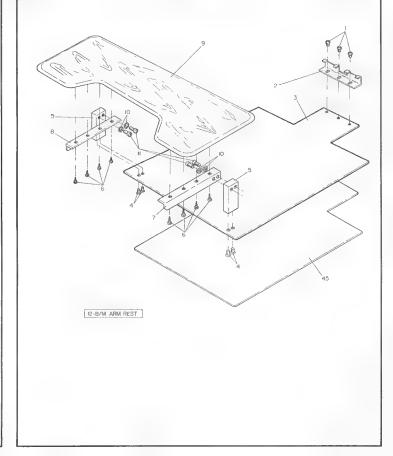
HANDICAPPED ATTACHMENTS

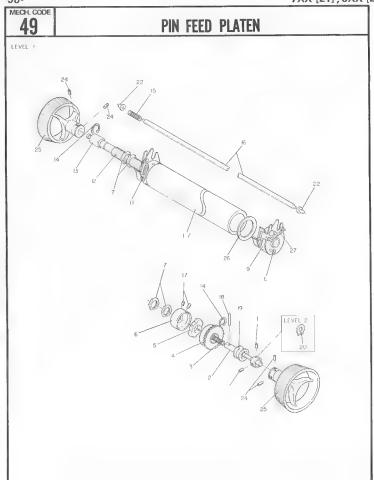
MECH CODE 45

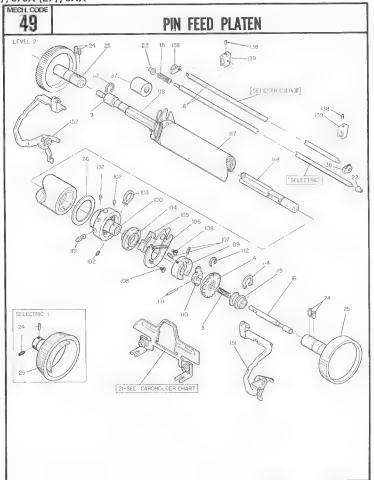


HANDICAPPED ATTACHMENTS

MECH. CODE 45







MECH. CODE 49 W. T. OVERHEAD PIN FEED PLATEN 339

MECH. CODE 51 STROKE COUNTER SEE MECH 23 SEE MECH 08 9-STROKE COUNTER B/M

MECH, CODE 65 W.T. PACKING PARTS

W.T. PACKING INSTRUCTIONS

WORLD TRADE PACKING INSTRUCTIONS

- 1. Position the carrier against the left-hand side frame of the machine.
- Unplug the linecord. Put the machine in lower case and trip position no. 3 (E-02) keylever. Put On/Off switch in off position.
- 3. Place the linecord around left-hand platen knob. Secure it with a rubber band (ref. 140).
 - 1. For 670X typewriter ("Selectric" III), place the foam (ref. 139) between the page-end indicator and the top cover. Secure the page-end indicator by placing a rubber band (ref. 140) over the page-end indicator, under the acoustical filter hood and paper bail shaft, and back over the page-end indicator.
 - 5. Place the spacers (ref. 134) in the shipping tray (ref. 135).
- 6. Place the machine on shipping tray (ref. 135).
- Fit the shipping screws (ref. 136) in each mounting hole in the bottom of the power frame.
- 8. Place the machine and shipping tray into the typewriter box (ref. 137).
- Place the left-hand top blocks (ref. 138) and the right-hand top blocks (ref. 133) in the locked position on the platen shaft and top/center cover as shown.
- 10. Place the liner (ref. 132) over the machine within the corner foam blocks of the shipping tray (ref. 135).
- Place the top plate (ref. 131) with the supply area folded into the liner (ref. 132) at the keyboard side of the machine.
- All supplies must be placed in the supply area of the top plate (ref. 131).
- The unpacking instruction (ref. 130) must be placed unfolded on top of the top plate (ref. 131). Do NOT place anything else on the unpacking instruction.
- 14. For machines with an acoustical filter hood, lay the noise reduction pad between the liner and the box.
- 15. For ocean freight, add four bags of silica gel (ref. 121) and a polybag.
- 16. Close the box (ref. 137) and seal the lid with heavy-duty packing tape (P/N 8199660).

BOLT DOWN INSTRUCTIONS

BOLT DOWN INSTRUCTIONS - DROP CENTER DESKS

- Install four mounting feet P/N 1128485 for "Selectric" Typewriters or P/N 1205981 for "Selectric" II and III Typewriters or Correcting "Selectric" II and III Typewriters – to power frame.
- Place a small amount of grease on the feet just around the outside of the threaded holes.
- Set typewriter down in the correct position on the desk. Lift typewriter off the desk. The position of the holes to be made can now easily be seen.
- Use a drill to make four holes and bolt machine to desk. See C-D Catalog, Code 204, Ref. 67 for mounting bolts.
- Warning: The two front bolts must have some clearance between the bolt heads and the desk bottom. They must not pull down on the feet or the power frame may twist. The two rear feet may be tightened.

COVER BOLT DOWN

- Remove machine from covers.
- Place bottom cover in correct position on desk.
- With a cover adapter in each of the two center holes of the bottom cover, mark where to drill the hole. On the "Selectric" II Typewriter, use spacer between adapter and bottom cover.
- Use proper length of bolt and fasten the bottom cover to the desk. To find out which bolt to use, add 1/2" (12.70 mm) to the thickness of the desk.

CAUTION

Bolting a machine down by other than these procedures can cause an electrical safety hazard or machine failure. An excessively long bolt could interfere with the motor windings or other inner mechanisms of the machine.

MECH, CODE 65 U.S. PACKING PARTS

U.S. PACKING INSTRUCTIONS

PACKING INSTRUCTIONS

- 1. Position the carrier all the way to the right, latch out tab and attach Minnesota Mining Y-9035 or similar tape as shown in Mech. 765.
- 2. Place Minnesota Mining Y-9035 or similar tape on top cover as shown.
- Place four rubber grommets under the bottom of the typewriter case as shown.
- 4. Use wing nut screws to mount the pallet to the machine.
- 5. Place hair pad in bottom of the box and insert machine.
- Place liner around the machine and place cord to the back of the liner with Minnesota Mining Y-9035 or similar tape.
- 7. Insert chipboard tray as shown and seal the carton with tape.

Warning: Do not excessively tighten the front right-hand wing nut screw.

UNPACKING INSTRUCTIONS

- Open carton by pulling tear tape completely around four sides. Remove top part of the box. Remove top cardboard chipboard tray. Lift out liner by moving the sides away from the platen knobs and lift machine out of the tray.
- 2. Tilt machine and pallet so the machine rests on the back cover.
- Remove the four thumb screws. These can normally be turned by hand, but, if necessary, use a pencil as an additional lever.
- 4. Remove pallet board and plastic spacers.
- 5. Remove rubber grommets from the five mounting holes in the machine bottom cover (seven on the 7X5 and 8X5).
- Install the four nylon spacers found in the plastic accessory bag into four of the mounting holes from which the thumb screws were removed.
- Set the machine down and remove the tape, holding the top cover and the type carrier.
- 8. The machine is now ready for preinstallation checkout.

APPROXIMATE MACHINE AND CARTON WEIGHT AND SIZE

7X1 - Size 14" (355.6 mm) Deep, 15" (381.0 mm) Wide

7X5, 8X5 - Size 14" (355.6 mm) Deep, 20" (508.0 mm) Wide

Model 7X1	32 lbs.	(14.5 kg)	
Models 7X3, 8X3	35 lbs.	(16.5 kg)	
Models 7X5, 8X5	37 lbs.	(17.5 kg)	
Carton 7X1	10 lbs.	(4.5 kg)	
Cartons 7X5, 8X5, 670X	14 lbs.	(6.35 kg)	

		MACHINE IDENT	IFICATION CODE	ES .
"SELECTRIC" TYPEWRITER — MACHINE TYPE 6121 1st Digit — 7 2nd Digit — 1 — Film Ribbon 2 — Fabric Ribbon 3rd Digit — 1 — 8-1/2" writing line 3 — 11" writing line 5 — 13" writing line		"SELECTRIC" III AND CORRECTING "SELECTRIC" III TYPEWRITERS — PRODUCT CODE 27 MACHINE DESCRIPTION MACHINE TYPE 13" Writing Line Single-Pitch Fabric		
"SELECTRIC" II AND CORRECTING "SELECTRIC" II Typewriters — Machine Type 6126		1st Digit —	9	
·	3 — Single-I 4 — Single-I 5 — Single-I 7 — Dual-Pi 8 — Dual-Pi		2nd Digit — 3rd Digit —	6 — Single-Pitch Selective Ribbon 4 — Single-Pitch Fabric Ribbon 5 — Single-Pitch Correcting "Selectric" Typewriter 1 — Dual-Pitch Selective Ribbon 2 — Dual-Pitch Fabric Ribbon 9 — Dual-Pitch Correcting "Selectric" Typewriter 3 — 11" writing line 5 — 13" writing line
8-1/2" 11" 13"		PER WIDTH CAPACITY 11" 13-1/2" 15-1/2"		

International Business Machines Corporation Office Products Division Customer Engineering